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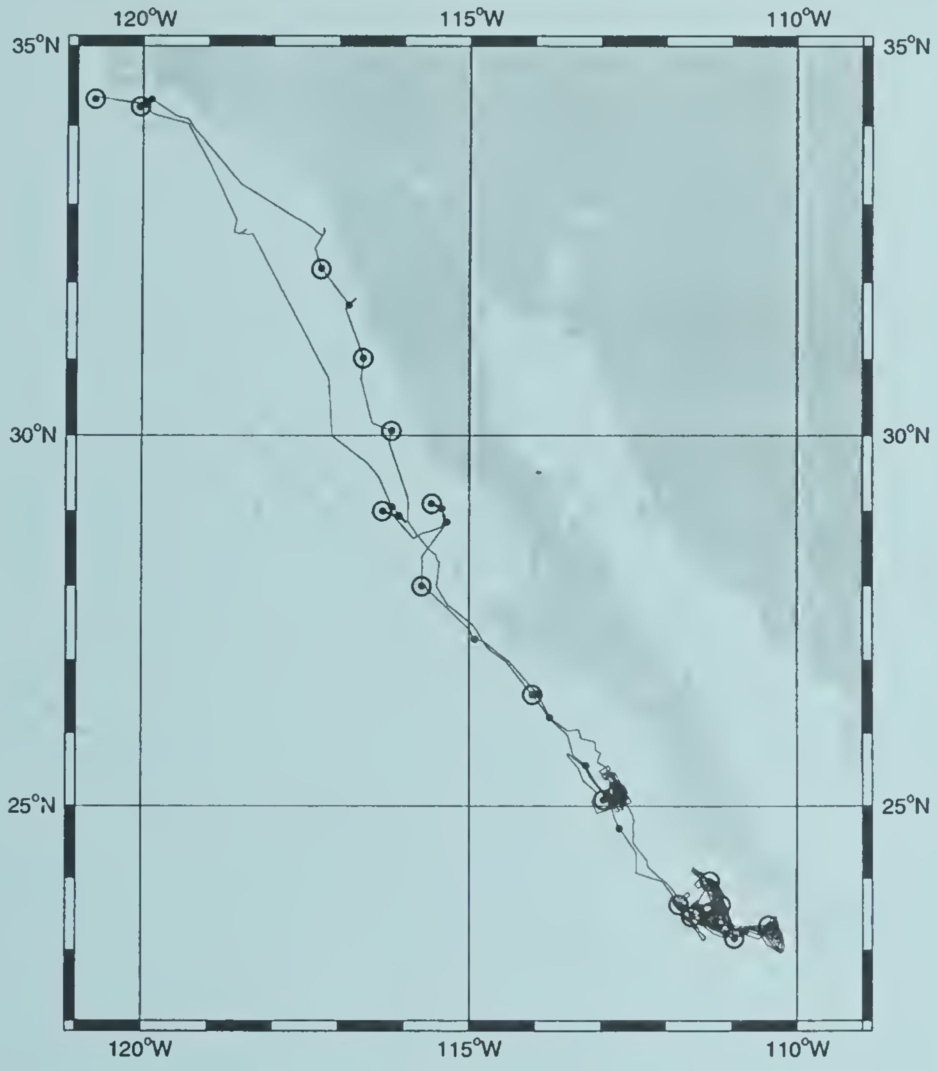
Baja California Coring Cruise OXMZ01MV



Core Descriptions and CTD/Rosette Data

Technical Report: LDEO 2001 – 01

LAMONT-DOHERTY EARTH OBSERVATORY
OF COLUMBIA UNIVERSITY

Baja California Coring Cruise OXMZ01MV

Core Descriptions and CTD/Rosette Data

RV Melville October 29 –November 22, 1999
A. van Geen, Chief Scientist

Funded by National Science Foundation grant
OCE 9809026

LDEO 2001-01

Introduction:

The main objective of this cruise was to recover high accumulation-rate sediment cores that have recorded changes in the intensity of the oxygen-minimum zone during the Holocene along the open Pacific margin of Baja California. The specific goal was to recover non-bioturbated sediment sections from a region that is particularly sensitive to variations in ocean-atmosphere interactions linked to climate. Another objective was to collect hydrographic data to constrain the conditions under which laminated sediment are preserved along the margin today.

Cruise description:

The expedition, consisting of a crew of 21 led by Captain Chris Curl, and a scientific party of 36, left San Diego, California, on October 29, 1999. During the first two days of the cruise, all sampling equipment was deployed in the Santa Barbara Basin. One 13-m piston core recovered from the center of the basin showed alternations between bioturbated/laminated intervals corresponding to the Younger-Dryas and the Bolling-Allerod, as previously documented at nearby ODP site 893. During our transit south over the next 6 days, no visibly laminated or banded sediment were observed in gravity cores collected on the open slope, within the oxygen minimum zone, until we reached 23° 38' N latitude. We were surprised not to find any evidence of banding or laminations within the productive and somewhat isolated Bahia de Sebastian Vizcaino, mid-way along the Baja California peninsula at ~28° N.

South of 23° 38', however, we encountered a half-dozen sites in the 430-730 m depth range with well-banded sediment cores extending ~3 m into the sediment; similar banding reappeared at several of the sites below 11 m depth into the sediment. Preliminary radiocarbon dating indicates that the upper 3-m of these sections cover the past 11,000 years. These new sites were the focus of intense gravity, piston, and multicoring activities over a period of 9 days. We also recovered also a suite of cores from two deeper sites (980 and 1260 m) in the same region, where sediment was bioturbated throughout. All coring targets were identified through effective use of 3.5 kHz Sonar, SeaBeam, and Side-Scan Sonar.

The next 5 days of the cruise were devoted to Soledad/San Lazaro basin, silled at ~300 m, which had been by-passed on our way south. The suite of gravity, piston, and multicores we recovered from this basin in the 440-540 m depth range showed very distinct and fine laminations. These laminations extended to ~12 m depth in the center of the basin, suggesting a sediment rate very similar to that of Santa Barbara basin.

Data Collection

A total of 55 gravity cores (up to 4 m in length), 16 piston cores (up to 16 m), 18 sets of multicores, and 19 CTD-Rosette were successfully collected. Maps of core locations and SeaBeam bathymetry were prepared by Barry Eakins. All cores were split, described, and digitally photographed on board. This information, painstakingly compiled by Walt Dean, forms the core of this technical report. Subsequent dating and comparison of records retrieved by the

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different coring devices from the site has shown that ~25 cm of surface sediment was typically lost by gravity coring, and ~150 cm by piston coring. The Lamont-Doherty Core Repository, where the cores are stored, provides samples from these cores upon request (curator@ldeo.columbia.edu). CTD-Rosette hydrographic and nutrient data obtained during the cruise are included in this report.

Acknowledgments

Superb support was provided throughout this expedition by Captain Curl and his crew, as well as members of the technical staff at Scripps Institution of Oceanography, Oregon State University, and Lamont-Doherty Earth Observatory.

Introducción:

El objetivo principal de este crucero fue el de recolectar nucleos sedimentarios a lo largo del margen Pacífico de Baja California, en sitios de alta razón de acumulación que pudieran registrar los cambios en la intensidad de la zona de minimo-oxígeno durante el Holoceno. La meta específica de este proyecto fue la de obtener secciones sedimentarias no-bioturbadas de esta región que es sensitiva a las variaciones oceano-atmósfera relacionadas con el clima. Otro de los objetivos fue el de colectar datos hidrográficos de esta región para constreñir las condiciones bajo las cuales los sedimentos laminados están siendo preservados a lo largo de este margen continental.

Descripción del Crucero:

La expedición, consistente de una tripulación de 21 personas comandada por el Cap. Chris Curl, y una partida científica de 36 personas, salió del Puerto de San Diego, California, E.U.A. Durante los primeros dos dias del crucero, todo el equipo científico fue puesto a prueba en la Cuenca de Santa Barbara, California, E.U.A. Un núcleo de pistón de 13 metros de longitud fue obtenido del centro de la cuenca, mostrando intervalos sedimentarios bioturbados, intercalados con secciones laminadas, que corresponden a los eventos del Younger-Dryas y al de Bolling-Allerod, tal y como fue documentado con anterioridad en el sitio cercano del ODP 893. Durante nuestra travesía hacia el sur, en los siguientes 6 dias, no se observaron laminaciones ni bandeamientos en los nucleos sedimentarios de gravedad que fueron colectados a lo largo de la pendiente continental expuesta, en la zona de minimo-oxígeno, sino hasta alcanzar la latitud 23° 38'N. Nos sorprendió no encontrar evidencias de laminaciones ni bandeamientos dentro de la productiva, y aislada, Bahía Sebastián Vizcaino, que se encuentra a la mitad de la península de Baja California, a ~28° N.

Al sur de 23° 38'N, sin embargo, encontramos una media docena de sitios, en un intervalo de profundidad de 4330-730 m, con nucleos sedimentarios bien bandeados hasta 3 m por debajo del sedimento; bandeamientos similares reaparecieeron en varios sitios a niveles de 11 m por debajo del sedimento. Los fechados preliminarres con radiocarbono indican que los 3 metros superiores de la columna sedimentaria representan los últimos 11,000 años. Estos nuevos sitios fueron el foco de intensa actividad de muestreo con nuceladores de gravedad, pistón y multicores durante un periodo de 9 dias. También recolectamos un juego de nucleos de dos sitios mas profundos (a 980 y 1260 m) en la misma región, donde el sedimento resultó estar bioturbado en toda su longitud. Todos los sitios de muestreo fueron identificados con el uso efectivo de un sonar de 3.5 KHz, un Seabeam y un Sonar de Barrido Lateral.

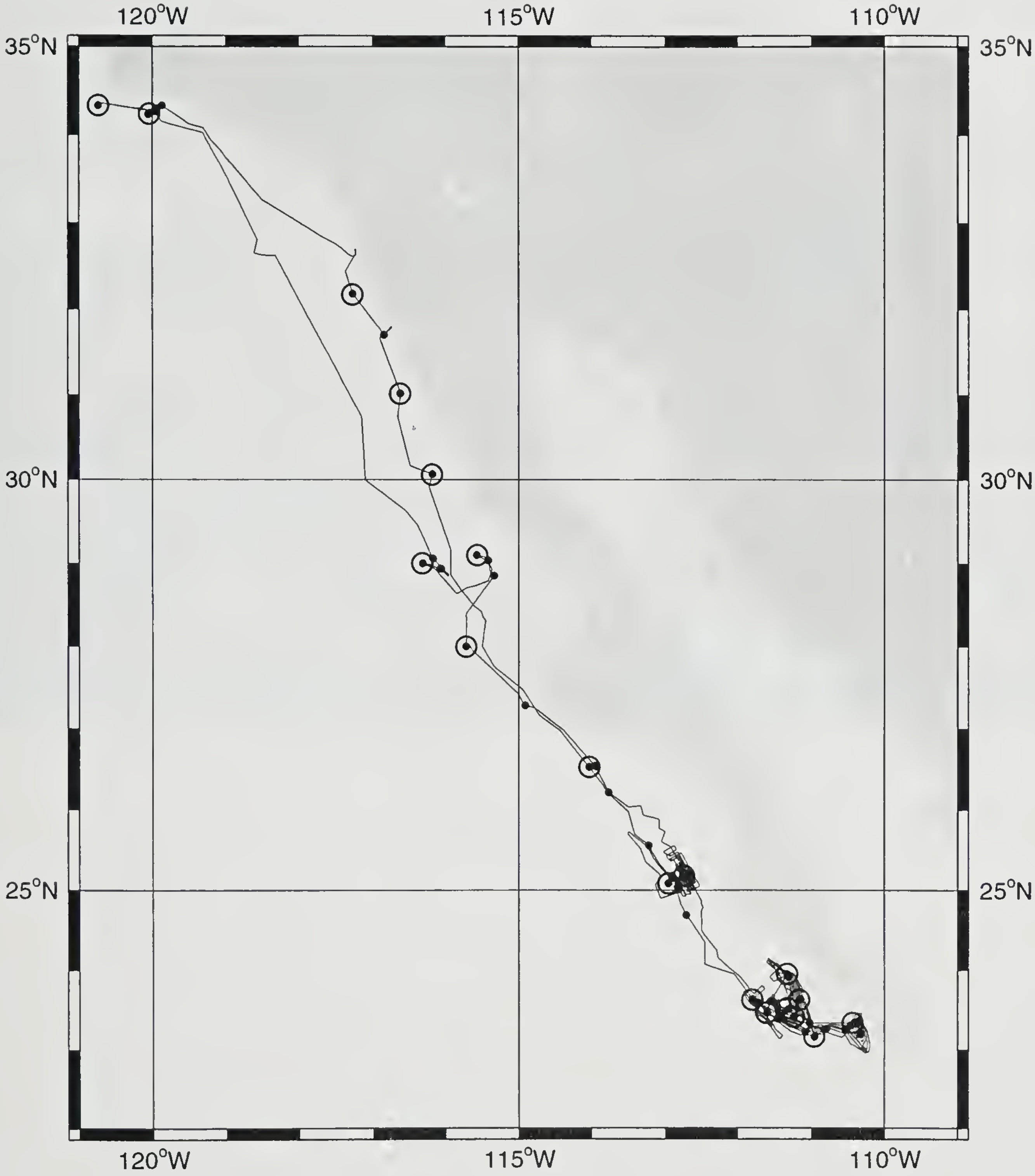
Los siguientes 5 dias del crucero fueron dedicados a Cuenca Soledad/San Lazaro, delimitada por un umbral submarino de ~300 m, la cual nos brincamos en nuestra travesía hacia el sur. Se recolectaron un juego de nucelos de gravedad, de piston y multicores de esta cuenca, en un rango de profundidad de 440-450 m, encontrándose laminaciones finas y bien definidas en estos núcleos. Estas laminaciones se extendían hasta 12 m de profundidad por debajo del sedimento en el centro de la cuenca, sugiriendo una razón de sedimentación muy similar a la de Cuenca Santa Barbara.

Colecta de Datos:

Se colectaron exitosamente un total de 55 nucleos de gravedad (hasta de 4 m de longitud), 16 núcleos de pistón (hasta de 16 m), 18 juegos de multicores, y 19 lanzamientos de CTD con Roseta. Los sitios de colecta de núcleos y de batimetría con SeaBeam fueron preparados por Barry Eakins. Todos los núcleos fueron seccionados longitudinalmente, descritos litologicamente, y digitalizados (por fotografía) a bordo del barco. Esta información, compiladada con el esfuerzo de Walt Dean, forma el núcleo de este reporte técnico. En base a las comparaciones hechas entre los registros colectados por los distintos tipos de nucleadores y los fechados radiométricos subsecuentes, nos ha permitido estimar que ~25 cm de sedimento superficial se pierde típicamente con los nucleadores de gravedad, y cerca de 150 cm con el uso de nucleadores de pistón. El repositorio de núcleos de Lamont-Doherty Earth Observatory, de la Universidad de Columbia, donde se encuentran almacenados estos núcleos, proporciona muestras de estos nucleos por petición (a: curator@ldeo.columbia.edu). Los datos hidrográfiicos de CTD y los de nutrientes obtenidos durante este crucero se incluyen en este reporte.

Agradecimientos:

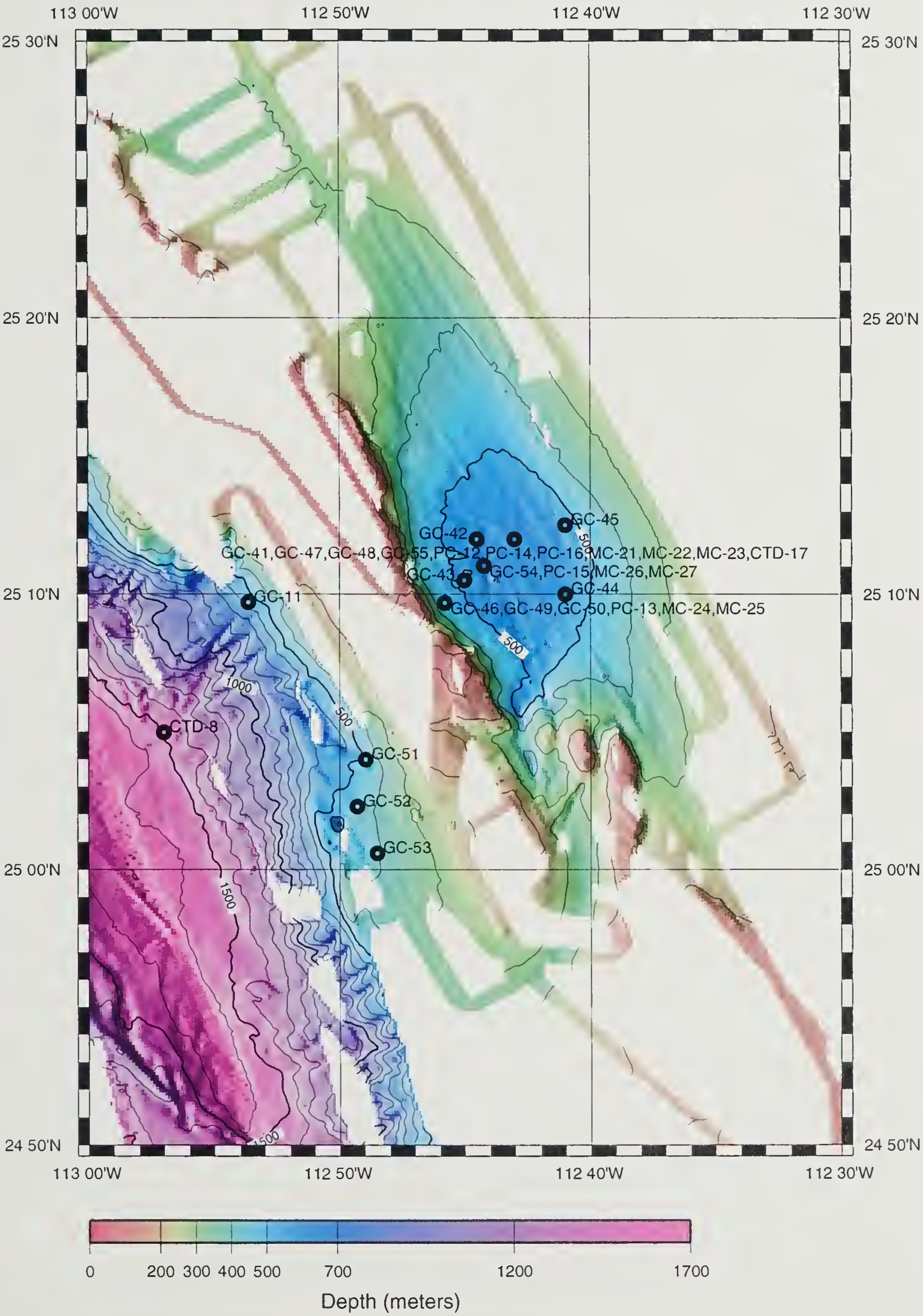
Excelente apoyo fue brindado durante la expedición por parte del Cap. Curl y su tripulación, asi como por parte de los miembros del personal técnico de Scripps Institution of Oceanography, Oregon State University, y Lamont-Doherty Earth Observatory



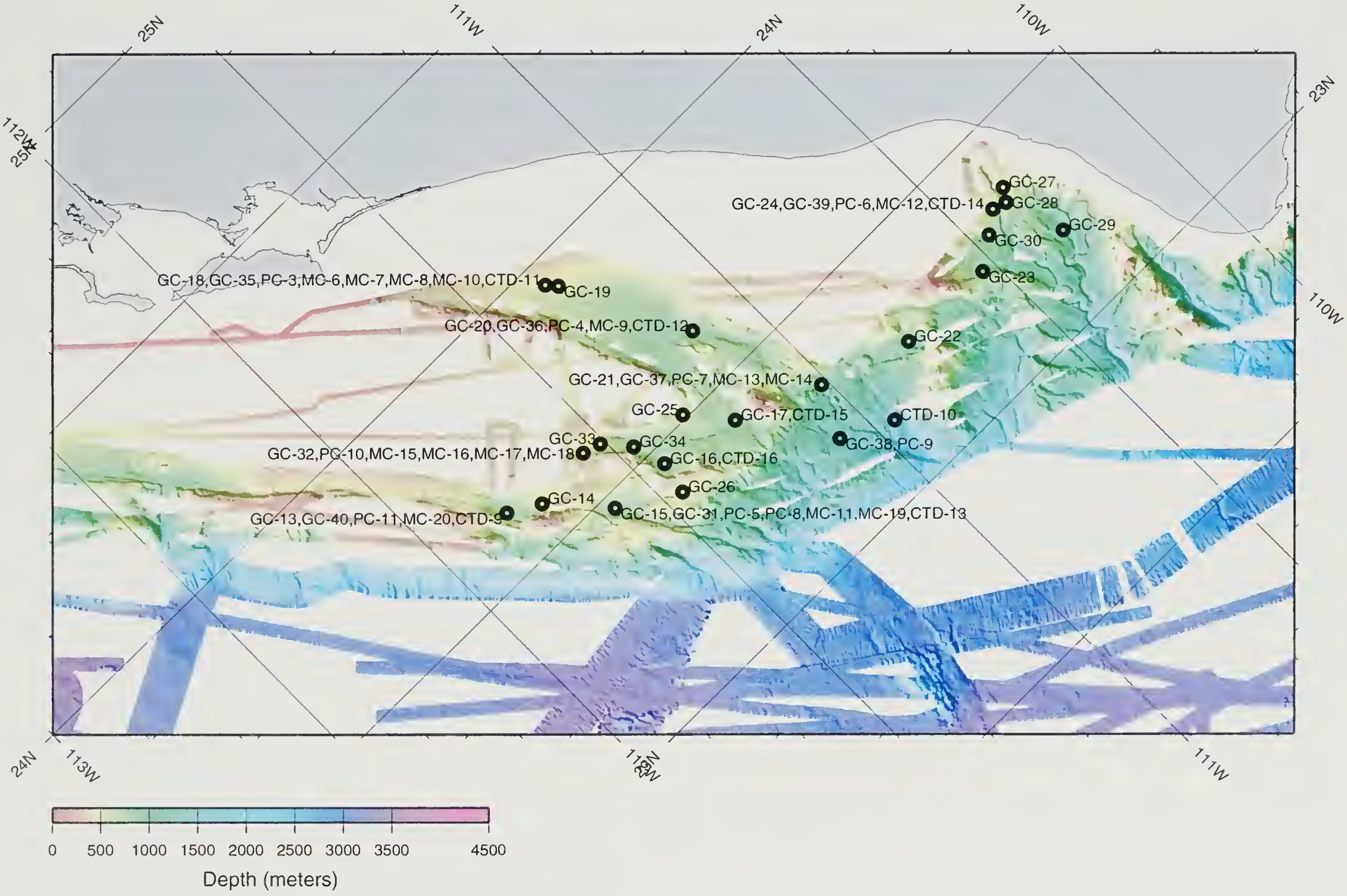
Cruise track OXMZ01MV, October 29 – November 22, 1999.
Core locations are indicated by black dots; CTD/Rosette casts by open circles.

Participants OXMZ01MV

Soledad Basin



Magdalena Borderland, Baja California Sur, Mexico


25N
111W
24N
110W
23N
112W
25N
110W
24N
113W
23N
111W
GC-27
GC-24,GC-39,PC-6,MC-12,CTD-14
GC-28
GC-29
GC-30
GC-23
GC-18,GC-35,PC-3,MC-6,MC-7,MC-8,MC-10,CTD-11
GC-19
GC-20,GC-36,PC-4,MC-9,CTD-12
GC-22
GC-21,GC-37,PC-7,MC-13,MC-14
GC-25
GC-17,CTD-15
CTD-10
GC-33
GC-34
GC-38,PC-9
GC-32,PC-10,MC-15,MC-16,MC-17,MC-18
GC-16,CTD-16
GC-26
GC-14
GC-15,GC-31,PC-5,PC-8,MC-11,MC-19,CTD-13
GC-13,GC-40,PC-11,MC-20,CTD-9
0
500
1000
1500
2000
2500
3000
3500
4500
Depth (meters)

List of Cores and CTD/Rosette Casts

R/V Melville OXMZ01MV
29 Oct to 22 Nov 1999

Gravity Cores

Core #	Succ	Main user	Latitude N		Longitude W		Depth(m)	Length (cm)	Location	Related Sampling
GC-1	1		34° 16.00′	N	119° 58.00′	W	557	204	Flank Santa Barbara Basin	PC-2
GC-2	1		34° 18.00′	N	119° 56.00′	W	496	186	Flank Santa Barbara Basin	
GC-3	1		29° 03.50′	N	116° 10.50′	W	923	37	Baja California Margin	
GC-4	1		28° 56.00′	N	116° 03.70′	W	1130	189	Baja California Margin	
GC-5	1		28° 55.98′	N	116° 04.32′	W	1053	190	Baja California Margin	
GC-6	1		29° 02.11′	N	115° 24.62′	W	600	150	San Quintin Basin	
GC-7	1		28° 51.47′	N	115° 19.85′	W	600	205	San Quintin Basin	
GC-8	1		27° 16.97′	N	114° 54.50′	W	670	86	Baja California Margin	
GC-9	1		26° 32.28′	N	113° 57.25′	W	637	41	Baja California Margin	
GC-10	1		25° 33.37′	N	113° 13.15′	W	610	0	Baja California Margin	
GC-11	1		25° 09.71′	N	112° 53.62′	W	555	125	Outside Soledad Basin	
GC-12	1		24° 41.54′	N	112° 42.21′	W	620	168	Baja California Margin	
GC-13	1		23° 38.00′	N	111° 48.00′	W	718	238	Baja California Borderland	GC-40,PC-11,MC-20,CTD-9
GC-14	1		23° 35.48′	N	111° 43.25′	W	547	225	Baja California Borderland	
GC-15	1		23° 27.99′	N	111° 35.92′	W	712	228	Baja California Borderland	GC-31,PC-5,PC-8,MC-11,MC-19,CTD-13
GC-16	1		23° 27.57′	N	111° 25.96′	W	680	239	Baja California Borderland	CTD-16
GC-17	1		23° 24.98′	N	111° 13.93′	W	712	228	Baja California Borderland	CTD-15
GC-18	1		23° 56.64′	N	111° 19.79′	W	505	127	Baja California Borderland	GC-35,PC-3,MC-6,MC-7,MC-8,MC-10,CTD-11
GC-19	1		23° 55.24′	N	111° 18.47′	W	540	241	Baja California Borderland	
GC-20	1		23° 37.84′	N	111° 09.00′	W	710	252	Baja California Borderland	GC-36,PC-4,MC-9,CTD-12
GC-21	1		23° 20.06′	N	111° 01.02′	W	976	191	Baja California Borderland	GC-37,PC-7,MC-13,MC-14
GC-22	1		23° 15.79′	N	110° 47.23′	W	798	169	Baja California Borderland	
GC-23	1		23° 15.41′	N	110° 32.08′	W	790	177	Baja California Borderland	
GC-24	1		23° 20.42′	N	110° 24.38′	W	541	193	Baja California Borderland	GC-39,PC-6,MC-12,CTD-14
GC-25	1		23° 30.58′	N	111° 18.91′	W	555	242	Baja California Borderland	
GC-26	0		23° 23.01′	N	111° 27.11′	W	540	0	Baja California Borderland	
GC-26/27?	1		23° 21.50′	N	110° 21.00′	W	536	215	Baja California Borderland	
GC-28	1		23° 19.80′	N	110° 22.29′	W	610	212	Baja California Borderland	
GC-29	1		23° 11.50′	N	110° 19.20′	W	930	191	Baja California Borderland	
GC-30	1		23° 18.30′	N	110° 27.53′	W	705	190	Baja California Borderland	
GC-31	1		23° 28.03′	N	111° 35.91′	W	705	387	Baja California Borderland	GC-15,PC-5,PC-8,MC-11,MC-19,CTD-13
GC-32	1		23° 36.50′	N	111° 33.50′	W	430	250	Baja California Borderland	PC-10,MC-15,MC-16,MC-17,MC-18
GC-33	1		23° 35.74′	N	111° 30.69′	W	540	237	Baja California Borderland	
GC-34	1		23° 32.25′	N	111° 27.50′	W	650	257	Baja California Borderland	
GC-35	1		23° 56.63′	N	111° 19.79′	W	504	352	Baja California Borderland	GC-18,PC-3,MC-6,MC-7,MC-8,MC-10,CTD-11
GC-36	1		23° 37.86′	N	111° 09.00′	W	711	378	Baja California Borderland	GC-20,PC-4,MC-9,CTD-20
GC-37	1		23° 20.08′	N	111° 01.01′	W	974	285	Baja California Borderland	GC-21,PC-7,MC-13,MC-14
GC-38	1		23° 13.05′	N	111° 04.73′	W	1269	308	Baja California Borderland	PC-9
GC-39	1		23° 20.45′	N	110° 24.38′	W	544	219	Baja California Borderland	GC-24,PC-6,MC-12,CTD-14
GC-40	1		23° 38.02′	N	111° 47.99′	W	720	384	Baja California Borderland	GC-13,PC-11,MC-20,CTD-9
GC-41	1		25° 12.00′	N	112° 43.00′	W	542	233	Soledad Basin	GC-47,GC-48,GC-55,PC-12,PC-14,PC-16, MC-21,MC-22,MC-23,CTD-17
GC-42	1		25° 12.00′	N	112° 44.50′	W	532	229	Soledad Basin	

GC-43	1		25° 10.50′ N	112° 45.00′ W	501	265	Soledad Basin	
GC-44	1		25° 09.99′ N	112° 40.99′ W	532	198	Soledad Basin	
GC-45	1		25° 12.50′ N	112° 41.00′ W	494	224	Soledad Basin	
GC-46	1		25° 09.69′ N	112° 45.79′ W	439	217	Soledad Basin	GC-49,GC-50,PC-13,MC-24,MC-25
GC-47	0		25° 12.01′ N	112° 43.01′ W	542	0	Soledad Basin	GC-41,GC-48,GC-55,PC-12,PC-14,PC-16, MC-21,MC-22,MC-23,CTD-17
GC-48	1		25° 12.02′ N	112° 43.01′ W	541	393	Soledad Basin	GC-41,GC-47,GC-55,PC-12,PC-14,PC-16, MC-21,MC-22,MC-23,CTD-17
GC-49	1		25° 09.71′ N	112° 45.79′ W	442	0	Soledad Basin	GC-46,GC-50,PC-13,MC-24,MC-25
GC-50	1		25° 09.72′ N	112° 45.80′ W	442	371	Soledad Basin	GC-46,GC-49,PC-13,MC-24,MC-25
GC-51	0		25° 04.00′ N	112° 48.96′ W	480	0	Outside Soledad Basin	
GC-52	1		25° 02.29′ N	112° 49.29′ W	441	152	Outside Soledad Basin	
GC-53	1		25° 00.60′ N	112° 48.49′ W	400	171	Outside Soledad Basin	
GC-54	1		25° 11.07′ N	112° 44.22′ W	537	399	Soledad Basin	PC-15,MC-26,MC-27
GC-55	1	T. Eglinton	25° 12.08′ N	112° 42.99′ W	542	0	Soledad Basin	GC-41,GC-47,GC-48,PC-12,PC-14,PC-16, MC-21,MC-22,MC-23,CTD-17
GC-56	1		26° 12.95′ N	113° 46.12′ W	670	187	Baja California Margin	
GC-57	1	J. Carriquiry	31° 42.30′ N	116° 50.50′ W	634	0	Off Ensenada	
	54	Total						

Piston Cores

Core #	Latitude	Longitude	Depth(m)		Location	Related Cores
PC-1	34° 14.00′ N	120° 03.01′ W	594	1119	Center Santa Barbara Basin	MC-2,MC-3,CTD-3
PC-2	34° 16.04′ N	119° 57.93′ W	540	960	Flank Santa Barbara Basin	GC-1,PC-2,CTD-3
PC-3	23° 56.66′ N	111° 19.79′ W	502	988	Baja California Borderland	GC-18,GC-25,MC-6,MC-7,MC-8,MC-10,CTD-11
PC-4	23° 37.85′ N	111° 09.00′ W	728	1072	Baja California Borderland	GC-20,GC-36,MC-9,CTD-12
PC-5	23° 28.00′ N	111° 35.92′ W	705	1094	Baja California Borderland	GC-15,GC-31,PC-8,MC-11,MC-19,CTD-13
PC-6	23° 20.43′ N	110° 24.38′ W	548	668	Baja California Borderland	GC-24,GC-39,MC-12,CTD-14
PC-7	23° 20.06′ N	111° 01.02′ W	978	1094	Baja California Borderland	GC-21,GC-37,MC-13,MC-14
PC-8	23° 28.01′ N	111° 35.91′ W	705	1385	Baja California Borderland	GC-15,GC-31,PC-5,MC-11,MC-19,CTD-13
PC-9	23° 13.11′ N	111° 04.75′ W	1260	1165	Baja California Borderland	GC-38
PC-10	23° 36.54′ N	111° 33.50′ W	432	1380	Baja California Borderland	GC-32,MC-15,MC-16,MC-17,MC-18
PC-11	23° 38.01′ N	111° 48.00′ W	712	1354	Baja California Borderland	GC-13,GC-40,MC-20,CTD-9
PC-12	25° 12.03′ N	112° 43.00′ W	542	1441	Soledad Basin	GC-41,GC-47,GC-48,GC-55,PC-14,PC-16, MC-21,MC-22,MC-23,CTD-17
PC-13	25° 09.73′ N	112° 45.80′ W	442	1497	Soledad Basin	GC-46,GC-49,GC-50,MC-24,MC-25
PC-14	25° 12.07′ N	112° 43.00′ W	541	1403	Soledad Basin	GC-41,GC-47,GC-48,GC-55,PC-12,PC-16, MC-21,MC-22,MC-23,CTD-17
PC-15	25° 11.08′ N	112° 44.22′ W	542	1458	Soledad Basin	GC-54,MC-26,MC-27
PC-16	25° 12.09′ N	112° 43.00′ W	541	1440	Soledad Basin	GC-41,GC-47,GC-48,GC-55,PC-12,PC-14, MC-21,MC-22,MC-23,CTD-17
				30753	Total cm	

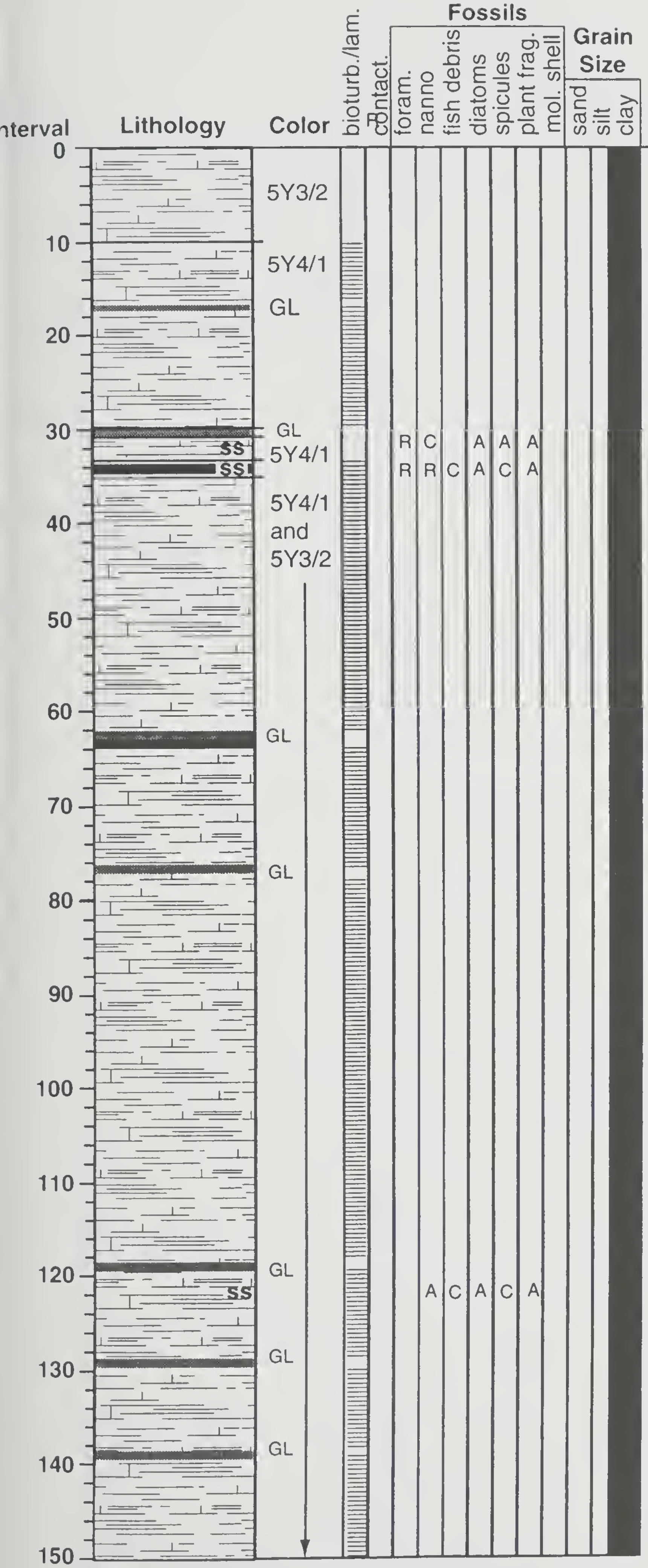
Multicores	Success						
Core #			Latitude	Longitude	Depth(m)	Location	Related Cores
MC-1	1		34° 16.00′ N	119° 58.00′ W	557	Flank Santa Barbara Basin	GC-1,PC-2,CTD-3
MC-2	0		34° 14.00′ N	120° 03.00′ W	588	Center Santa Barbara Basin	
MC-3	1		34° 14.00′ N	120° 02.99′ W	588	Center Santa Barbara Basin	PC-1,MC-2,CTD-3
MC-4	0		34° 15.02′ N	120° 01.20′ W	589	Center Santa Barbara Basin	MC-5
MC-5	1	A. Pearson	34° 15.02′ N	120° 01.20′ W	587	Center Santa Barbara Basin	MC-4
MC-6	0		23° 56.63′ N	111° 19.79′ W	504	Baja California Borderland	GC-18,GC-35,PC-3,MC-7,MC-8,MC-10,CTD-11
MC-7	0		23° 56.64′ N	111° 19.76′ W	504	Baja California Borderland	GC-18,GC-35,PC-3,MC-6,MC-8,MC-10,CTD-11
MC-8	1		23° 56.65′ N	111° 19.79′ W	504	Baja California Borderland	GC-18,GC-35,PC-3,MC-6,MC-7,MC-10,CTD-11
MC-9	1		23° 37.85′ N	111° 09.00′ W	711	Baja California Borderland	GC-20,GC-36,PC-4,CTD-12
MC-10	1		23° 56.67′ N	111° 19.78′ W	508	Baja California Borderland	GC-18,GC-35,PC-3,MC-6,MC-7,MC-8,CTD-11

MC-11	1		23° 28.01′ N	111° 35.92′ W	704	Baja California Borderland	GC-15,GC-31,PC-5,PC-8,MC-19,CTD-13
MC-12	1		23° 20.44′ N	110° 24.38′ W	542	Baja California Borderland	GC-24,GC-39,PC-6,CTD-14
MC-13	1		23° 20.07′ N	111° 01.02′ W	984	Baja California Borderland	GC-21,GC-36,PC-7,MC-14
MC-14	1	A. Pearson	23° 20.08′ N	111° 01.02′ W	980	Baja California Borderland	GC-21,GC-36,PC-7,MC-13
MC-15	0		23° 36.51′ N	111° 33.50′ W	445	Baja California Borderland	GC-32,PC-10,MC-16,MC-17,MC-18
MC-16	0		23° 36.52′ N	111° 33.50′ W	445	Baja California Borderland	GC-32,PC-10,MC-15,MC-17,MC-18
MC-17	1		23° 36.52′ N	111° 33.50′ W	445	Baja California Borderland	GC-32,PC-10,MC-15,MC-16,MC-18
MC-18	1	J. Bernhard	23° 36.55′ N	111° 33.51′ W	433	Baja California Borderland	GC-32,PC-10,MC-15,MC-16,MC-17
MC-19	1		23° 28.04′ N	111° 35.91′ W	727	Baja California Borderland	GC-15,GC-31,PC-5,PC-8,MC-11,CTD-13
MC-20	1		23° 38.02′ N	111° 48.00′ W	712	Baja California Borderland	GC-13,GC-40,PC-11,CTD-9
MC-21	0		25° 12.04′ N	112° 43.00′ W	541	Soledad Basin	GC-41,GC-47,GC-48,GC-55,PC-12,PC-14,PC-16, MC-22,MC-23,CTD-17
MC-22	1		25° 12.05′ N	112° 43.00′ W	550	Soledad Basin	GC-41,GC-47,GC-48,GC-55,PC-12,PC-14,PC-16, MC-21,MC-23,CTD-17
MC-23	1		25° 12.06′ N	112° 43.00′ W	550	Soledad Basin	GC-41,GC-47,GC-48,GC-55,PC-12,PC-14,PC-16, MC-21,MC-22,CTD-17
MC-24	0		25° 09.74′ N	112° 45.80′ W	442	Soledad Basin	GC-46,GC-49,GC-50,PC-13,MC-25
MC-25	1		25° 09.75′ N	112° 45.80′ W	443	Soledad Basin	GC-46,GC-49,GC-50,PC-13,MC-24
MC-26	0		25° 11.05′ N	112° 44.22′ W	530	Soledad Basin	GC-54,PC-15,MC-27
MC-27	1		25° 11.06′ N	112° 44.22′ W	537	Soledad Basin	GC-54,PC-15,MC-26
	18 Total						
CTD Casts	Success						
Core #			Latitude	Longitude	Depth(m)	Location	Related Cores
CTD-1	0		34° 20.04′ N	119° 52.17′ W	66	Santa Barbara Basin	
CTD-2	1		34° 22.06′ N	120° 44.03′ W	604	Outside Santa Barbara Basin	
CTD-3	1		34° 14.00′ N	120° 02.99′ W	583	Center Santa Barbara Basin	PC-1,MC-2,MC-3
CTD-4	1		28° 59.98′ N	116° 18.98′ W	1413	Baja California Margin	
CTD-5	1		29° 05.98′ N	115° 34.59′ W	1440	San Quintin Basin	
CTD-6	1		27° 59.89′ N	115° 43.12′ W	1486	Baja California Margin	
CTD-7	1		26° 31.58′ N	114° 01.83′ W	1434	Baja California Margin	
CTD-8	1		25° 04.98′ N	112° 57.00′ W	1400	Outside Soledad Basin	
CTD-9	1		23° 38.00′ N	111° 48.00′ W	712	Baja California Borderland	GC-13,GC-40,PC-11,MC-20
CTD-10	1		23° 09.50′ N	110° 57.00′ W	1443	Baja California Borderland	
CTD-11	1		23° 56.66′ N	111° 17.99′ W	502	Baja California Borderland	GC-18,GC-35,PC-3,MC-6,MC-7,MC-8,MC-10
CTD-12	1		23° 37.85′ N	111° 09.00′ W	715	Baja California Borderland	GC-20,GC-36,PC-4,MC-9
CTD-13	1		23° 28.01′ N	111° 35.91′ W	706	Baja California Borderland	GC-15,GC-31,PC-5,PC-8,MC-11,MC-19
CTD-14	1		23° 20.44′ N	110° 24.38′ W	542	Baja California Borderland	GC-24,GC-39,PC-6,MC-12
CTD-15	1		23° 24.92′ N	111° 14.02′ W	702	Baja California Borderland	GC-17
CTD-16	1		23° 27.65′ N	111° 26.02′ W	700	Baja California Borderland	GC-16
CTD-17	1		25° 12.00′ N	112° 43.00′ W	540	Soledad Basin	GC-41.GC-47,GC-48,GC-55,PC-12,PC-14,PC-16,MC-21,MC-22,MC-23
CTD-18	1		30° 04.00′ N	116° 11.00′ W	1615	San Quintin Basin	
CTD-19	1		31° 01.00′ N	116° 37.00′ W	1441	Baja California Margin	
CTD-20	1		32° 11.00′ N	117° 16.00′ W		Baja California Margin	
	19 Total						

CTD Casts	Success					
Core #		Latitude	Longitude	Depth(m)	Location	Related Cores
CTD-2	1	34° 22.06′ N	120° 44.03′ W	604	Outside Santa Barbara Basin	
CTD-20	1	32° 11.00′ N	117° 16.00′ W		Baja California Margin	
CTD-19	1	31° 01.00′ N	116° 37.00′ W	1441	Baja California Margin	
CTD-18	1	30° 04.00′ N	116° 11.00′ W	1615	San Quintin Basin	
CTD-4	1	28° 59.98′ N	116° 18.98′ W	1413	Baja California Margin	
CTD-6	1	27° 59.89′ N	115° 43.12′ W	1486	Baja California Margin	
CTD-7	1	26° 31.58′ N	114° 01.83′ W	1434	Baja California Margin	
CTD-8	1	25° 04.98′ N	112° 57.00′ W	1400	Outside Soledad Basin	
CTD-10	1	23° 09.50′ N	110° 57.00′ W	1443	Baja California Borderland	
	19 Total					
Nearshore						
CTD-3	1	34° 14.00′ N	120° 02.99′ W	583	Center Santa Barbara Basin	PC-1,MC-2,MC-3
CTD-5	1	29° 05.98′ N	115° 34.59′ W	1440	San Quintin Basin	
CTD-17	1	25° 12.00′ N	112° 43.00′ W	540	Soledad Basin	GC-41.GC-47,GC-48,GC-55,PC-12,PC-14,PC-16,MC-21,MC-22,MC-23
CTD-9	1	23° 38.00′ N	111° 48.00′ W	712	Baja California Borderland	GC-13,GC-40,PC-11,MC-20
CTD-13	1	23° 28.01′ N	111° 35.91′ W	706	Baja California Borderland	GC-15,GC-31,PC-5,PC-8,MC-11,MC-19
CTD-11	1	23° 56.66′ N	111° 17.99′ W	502	Baja California Borderland	GC-18,GC-35,PC-3,MC-6,MC-7,MC-8,MC-10
CTD-12	1	23° 37.85′ N	111° 09.00′ W	715	Baja California Borderland	GC-20,GC-36,PC-4,MC-9
CTD-14	1	23° 20.44′ N	110° 24.38′ W	542	Baja California Borderland	GC-24,GC-39,PC-6,MC-12
CTD-15	1	23° 24.92′ N	111° 14.02′ W	702	Baja California Borderland	GC-17
CTD-16	1	23° 27.65′ N	111° 26.02′ W	700	Baja California Borderland	GC-16
CTD-17	1	25° 12.00′ N	112° 43.00′ W	540	Soledad Basin	GC-41.GC-47,GC-48,GC-55,PC-12,PC-14,PC-16,MC-21,MC-22,MC-23

Core Descriptions

Water Depth: 557 m



Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

Remarks

overall:

SILTY CLAY (siliceous, nanno-bearing); ol gray with lt gray clay layers (GL; pale ol,10Y6/2) @ 17, 30,62-63, 77, 88-89, 119, 129, and 139 cm; some are massive, but most are laminated with ol blk (5Y2/1) laminae; laminae are mostly discontinuous, flaser-like, and on a mm-scale; few distinct varve-like laminae

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0-10 cm: SILTY CLAY: disturbed top; homogeneous;
10-30 cm: SILTY CLAY; olive gray (5Y4/1); mostly massive homogeneous
31-33 cm: SILTY CLAY; laminated ol blk (5Y2/1) and ol gray (5Y4/1)
33-35 cm: SILTY CLAY; ol gray (5Y4/1) massive layer
35-62 cm: SILTY CLAY; alternating bands (4-5 cm) of slightly darker (5Y3/2), slightly lighter(5Y4/1), more, less laminated
63-64 cm: massive, ol blk (5Y2/1) layer
64-150 cm: SILTY CLAY; same as 35-62 cm (lam. ol gry with lt gray layers as indicated; 4-5-cm bands not as obvious as in 35-62 cm

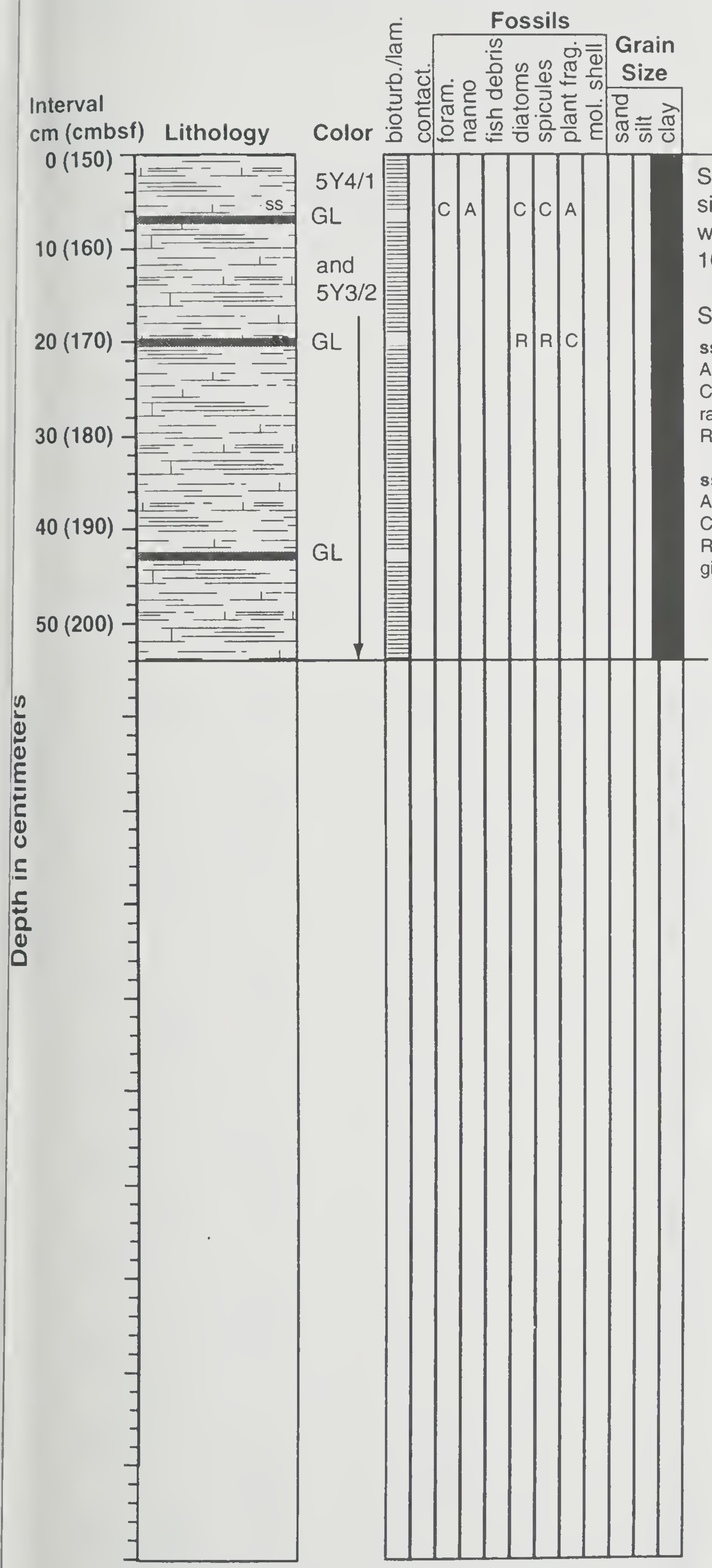
Smear Slides:

ss 32 cm (dominant lithology)
A: clay; palynomorphs; silicoflag.; sponge spic.; diatom frag. (pennate & centric; *Thalassiosira; Chaetoceros* spores; *Navicula; Cyclotella; Cocconeis; Paralia sulcata; Thallasionema;* benthics; *Hemidiscus cuneiformis; Rhizosolenia*)
C: nannos; carbonate frags.; angular qtz. frags.
R: forams

ss 35 cm (massive olive layer)
A: clay; carbonate frags.; angular qtz. frags; palynomorphs; diatom frag. (pennate & centric; *Thalassiosira; Chaetoceros* spores; *Pseudoeunotia; Thalassionema; Thallassiothrix; Paralia sulcata*)
C: silicoflag.; sponge spic.; fish debris
R: forams; nannos

ss 122 cm (dominant lithology)
A: clay; carbonate fragments; nannos; ang. to sub-ang. qtz grains; palynomorphs
C: silicoflag.; sponge spic.; diatom frag. (pennate & centric; *Thalassiosira; Chaetoceros* spores; *Navicula; Fallacia; Cocconeis*; *Thallasionema nitzschioides v. parva);* fish debris
R: forams

OXMZ01MV Core: GC1 Sect.: 1 10-54 cm (150-204 cm) Lat.: 34 16 N Long.: 119 58 W
Water Depth: 557 m



SILTY CLAY (nanno-, foram-, diatom- and sponge-bearing); similar to base of sect. 2; laminated (more or less) ol gray with ol blk laminations; lt gray clay layers (GL; pale ol, 10Y6/2) @ 7 (157), 20 (170), and 43 (193) cm

Smear Slides:

ss 5 (155) cm (dominantol gray lithology)
A: clay; palynomorphs; carbonate frags; nannos
C: sponge spicules; diatoms (based on abundance of girdle bands); radiolarians; forams
R: silicoflag.

ss 21 (171) cm (gray layer)
A: clay
C: palynomorphs; carbonate fragments
R: diatoms (*Chaetoceros* resting spores; *Thalassionema; Nitzschia*; centric girdle bands)l silicoflag; spicules

54 cm (204 cm) = base of section; base of core

Most abundant foraminifera:

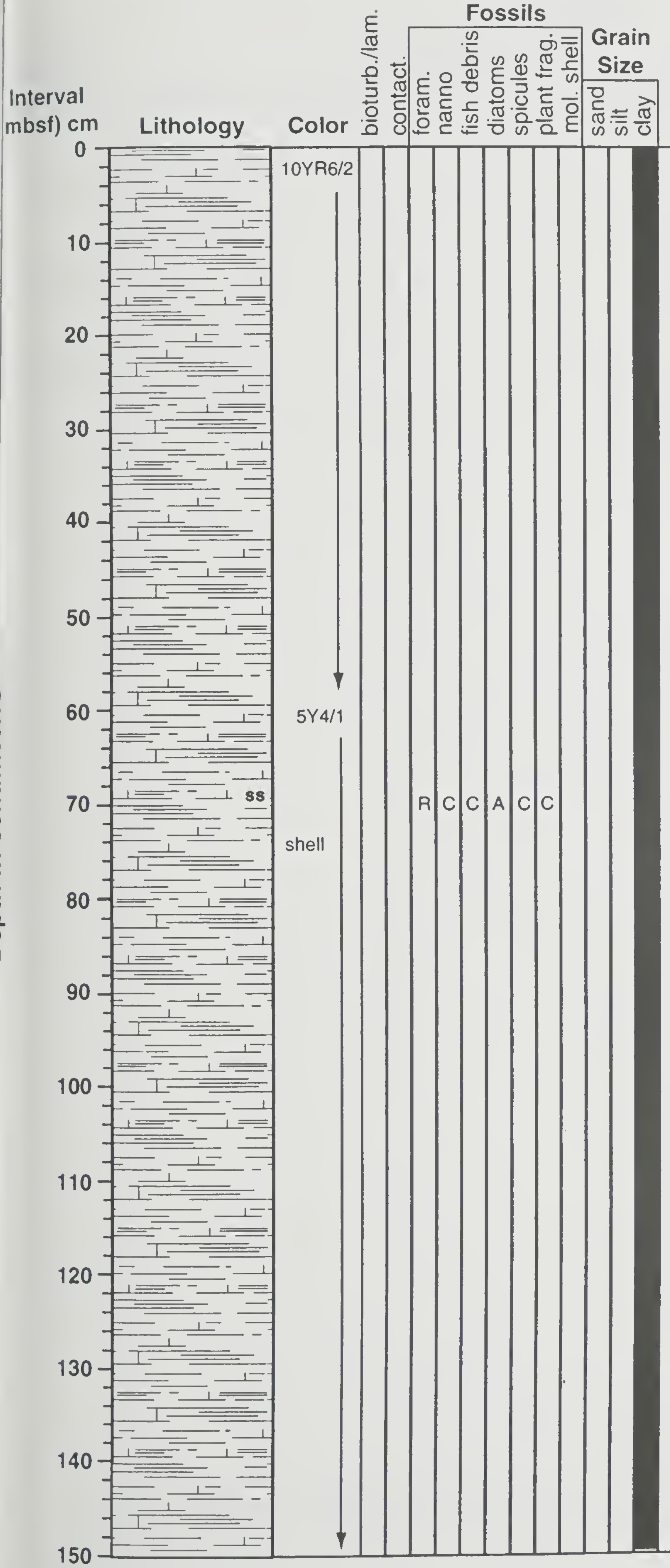
GC1-1 0-2 cm
Bolivina argentea, Loxostomum pseudoberichi, Bolivina advena, Bolivina seminuda, Buliminella subfusiformis, Rutherfordoides cornuta, Suggrunda eckisi

GC1-1 50-52 cm
Suggrunda eckisi, Rutherfordoides comuta, Bolivina seminuda, Loxostomum pseudoberichi, Buliminella subfusiformis, Bolivina advena

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core:GC2 Sect.: 2 (0-150 mbsf) Lat.: 34 18 N Long.: 119 56 W

Water Depth: 496 m



Remarks

CLAY (siliceous, nanno-bearing): dark yel. brown (10YR6/2 at top to olive gray (5Y4/1) below 60 cm; a few lighter mottles and lenses (5GY6/1); homogeneous; coring disturbance ("soupy") in top 40 cm

Smear Slides:

ss 70 cm (dominant lithology)

A: clay; diatoms *(Pseudoeunotia; Thalassionema; Paralia; Coscinodiscus; Chaetoceros* resting spores; centric girdle bands)

C: nannos; pyrite; carb. debris; sponge spic.; nannos; fish debris; palynom.

R: forams; silicoflag.

Most abundant foraminifera

GC2-2 60-62 cm:

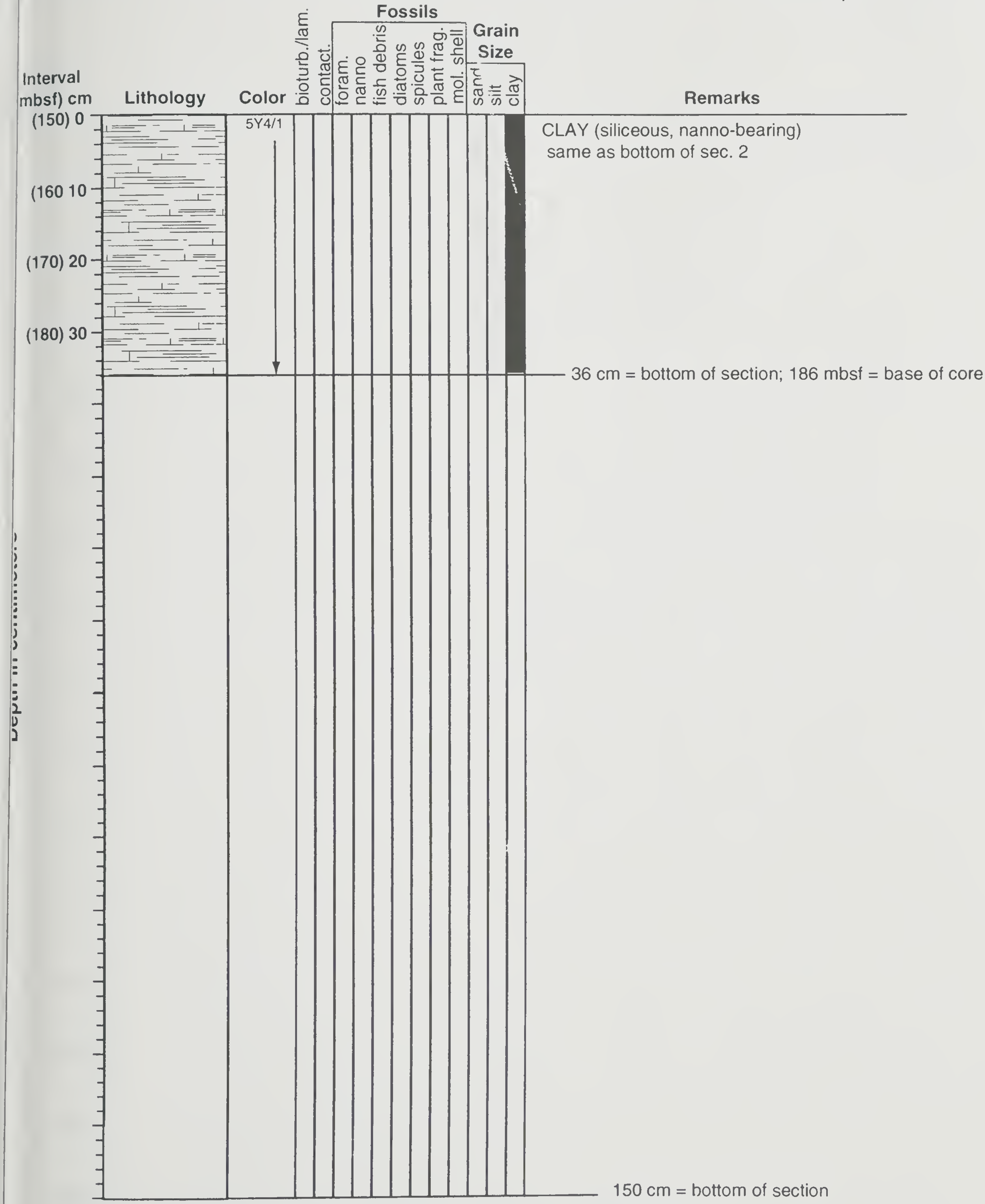
Bolivina argentea, Loxostomum pseudobeyrichi, Uvigerina peregrina

150 cm = bottom of section

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC2 Sect.: 1 (150-186 mbsf) Lat.: 34 18 N Long.: 119 56 W
Water Depth: 496 m



CLAY (siliceous, nanno-bearing)
same as bottom of sec. 2

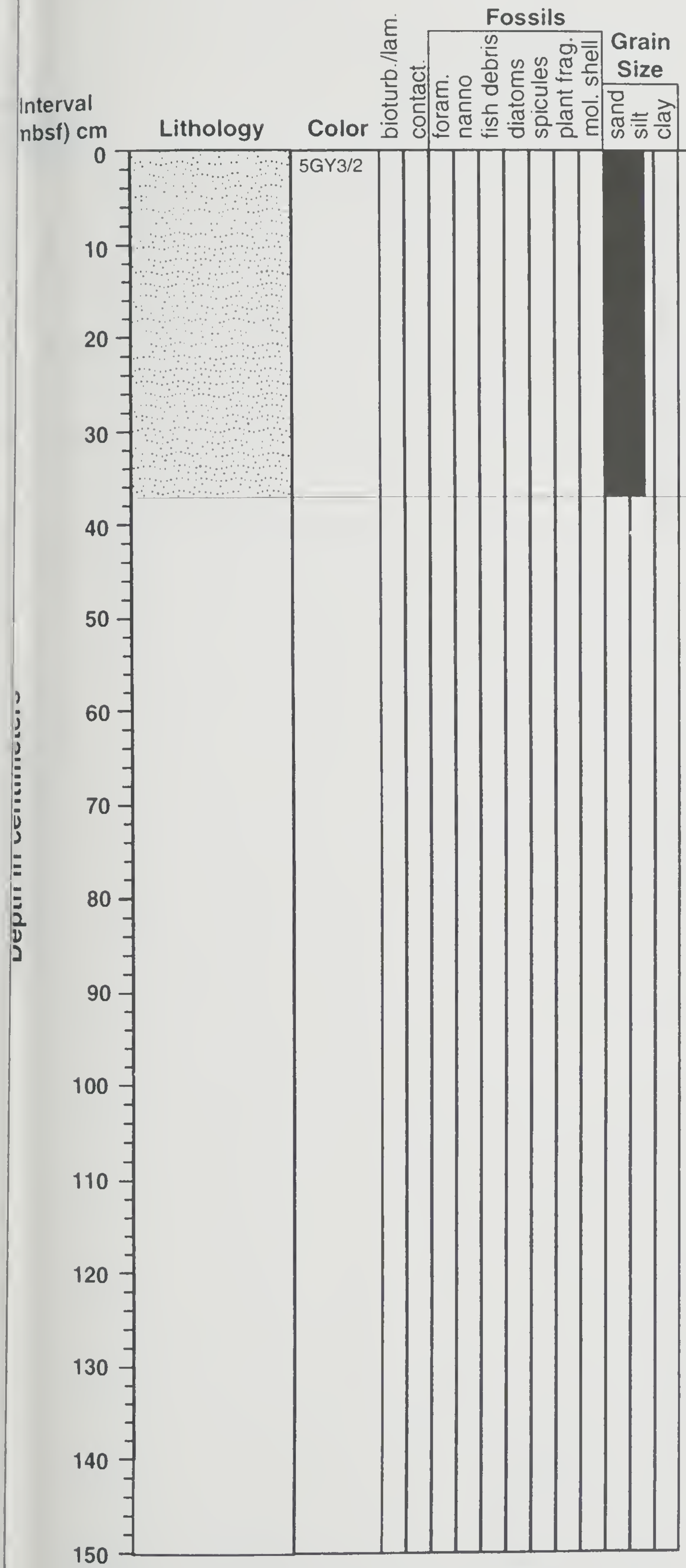
36 cm = bottom of section; 186 mbsf = base of core

150 cm = bottom of section

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC3 Sect.: 1 (0-37 cmbsf) Lat.:29 03.5 N Long.: 116 10.5 W

Water Depth: 923 m



Remarks

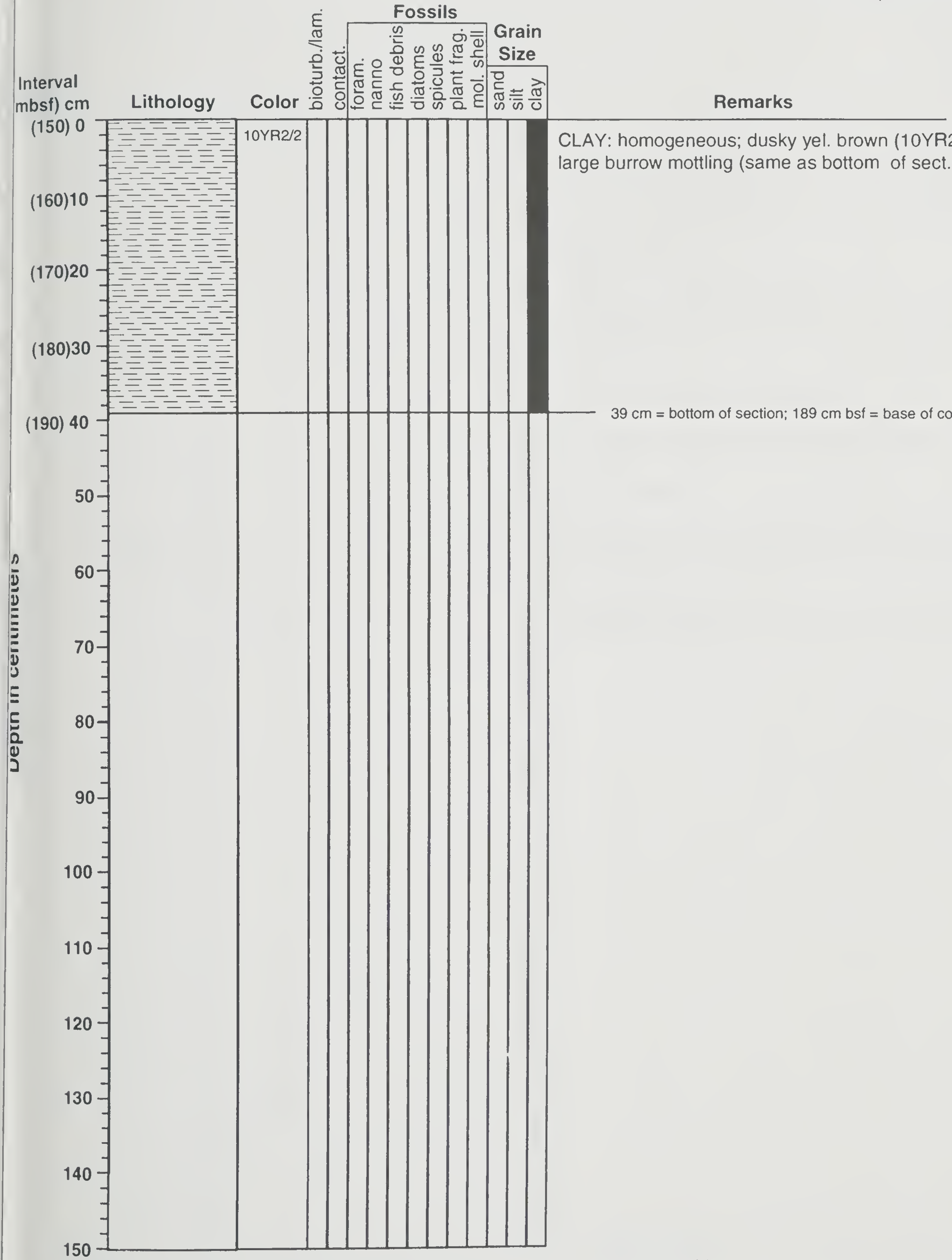
SAND: grayish olive green (5GY3/2); homogeneous

37 cm = bottom of section, bottom of core

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC4 Sect.: 1 (150-189 cmbsf) Lat.: 28 56.0 N Long.: 116 03.70 W
Water Depth: 1130 m

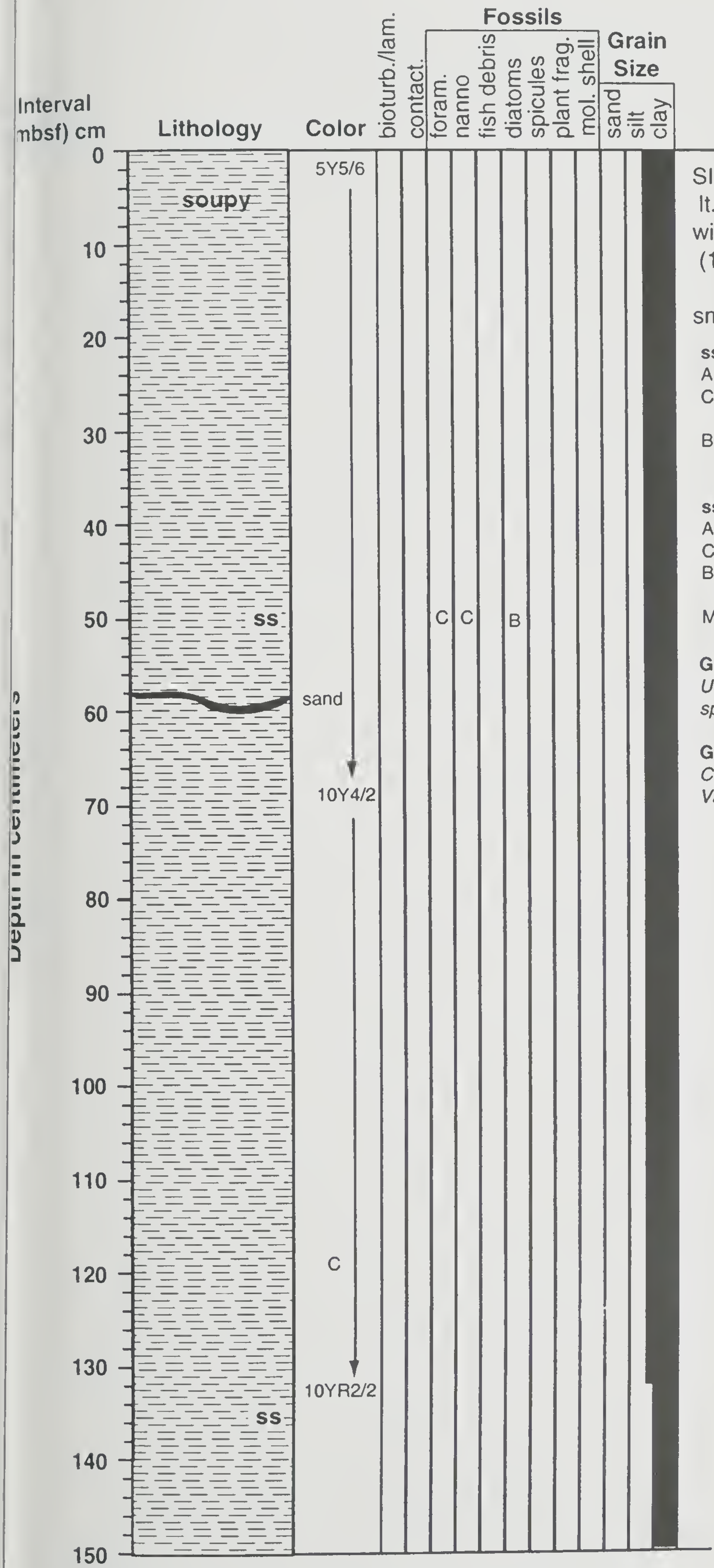


CLAY: homogeneous; dusky yel. brown (10YR2/2) with large burrow mottling (same as bottom of sect. 2)

39 cm = bottom of section; 189 cm bsf = base of core

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC4 Sect.: 2 (0-150 cmbsf) Lat.: 28 56.0 N Long.: 116 03.70 W
Water Depth: 1130 m



Remarks

SILTY CLAY (foram-, nanno-bearing): homogeneous; lt. ol. brown (5Y5/6) becoming dark yel. brown (10YR4/2) with depth; sharp color break at 132 cm to dusky yel. brown (10YR2/2) with large burrow mottling of overlying material

smear slides

ss 50 cm (upper dominant lithology)
A: clay;
C: forams; nannos; carbonate fragments; angular to subangular lithic fragments
B: diatoms

ss 135 cm (lower dominant lithology)
A: clay;
C: angular to subangular lithic and carbonate fragments
B: diatoms

Most abundant forams

GC4-2 0-2 cm
Uvigerina sp., Oridorsalis sp., Bolivina spissa, Cassidulina sp., Cibicides sp., Valvulinaria sp., Bulimina sp.

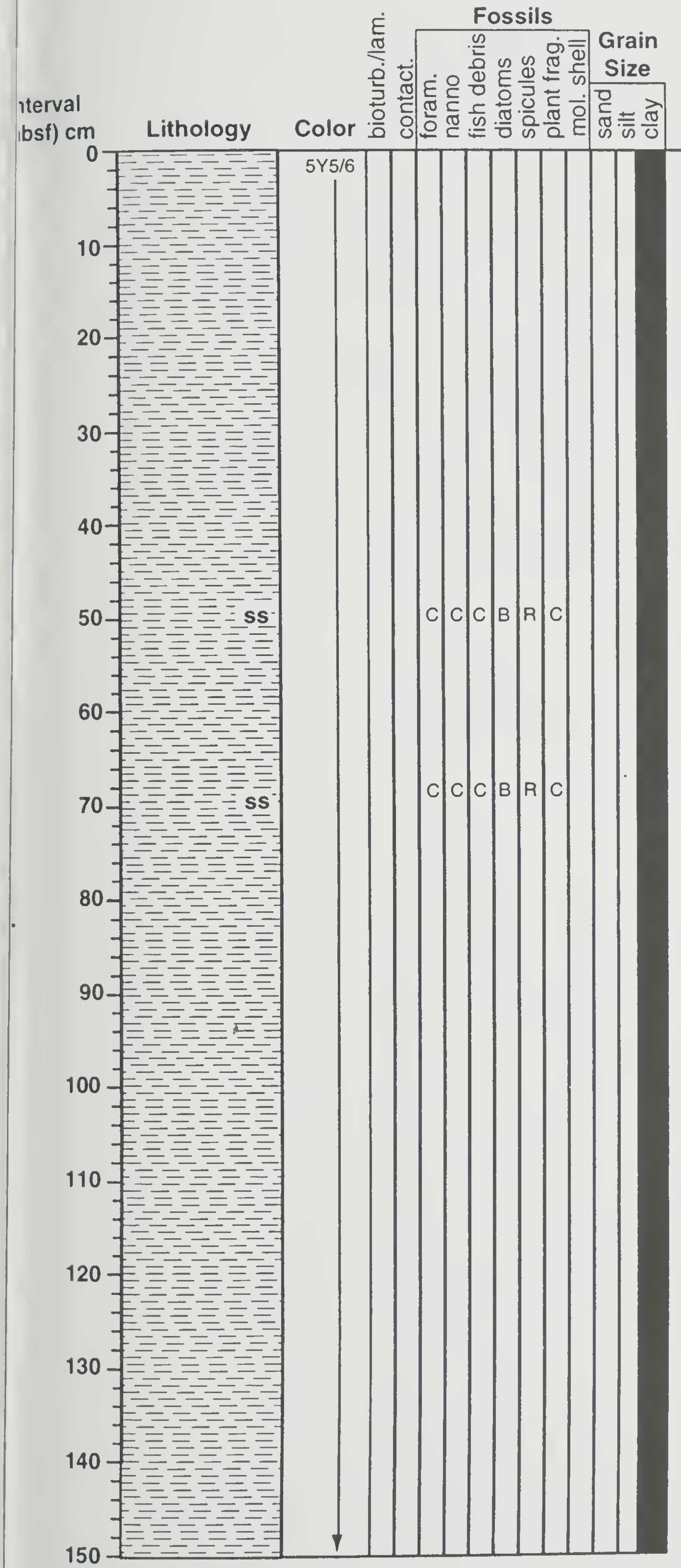
GC4-2 80-82 cm
Cibicides sp., Uvigerina sp., Melonis sp., Pyrgo sp., Cassidulina sp., Valvulinaria sp., Bulimina sp.

150 cm = bottom of section150 cm = bottom of section
ss=smear slide

Fossils: A=Abundant C=Common R=Rare B=Barren
Contacts: S=Sharp G=gradational M=mottled

XM201MV Core: GC5 Sect.: 2 (0-150 cmbst) Lat.: 28 55.98 N Long.: 116 04.32 W

Water Depth: 1053 m



Remarks

SILTY CLAY (foram-, nanno-bearing): homogeneous; lt. ol. brown (5Y5/6) with slightly lighter large burrows

smear slides

ss 40 cm (dominant lithology)
A: clay;
C: forams; nannos; palynomorphos; fish debris
R. sponge spicules
B: diatoms

ss 70 cm (dominant lithology)
A: clay;
C: forams; nannos; carb. frags; fish debris
R. sponge spicules
B: diatoms

Most abundant foraminifera

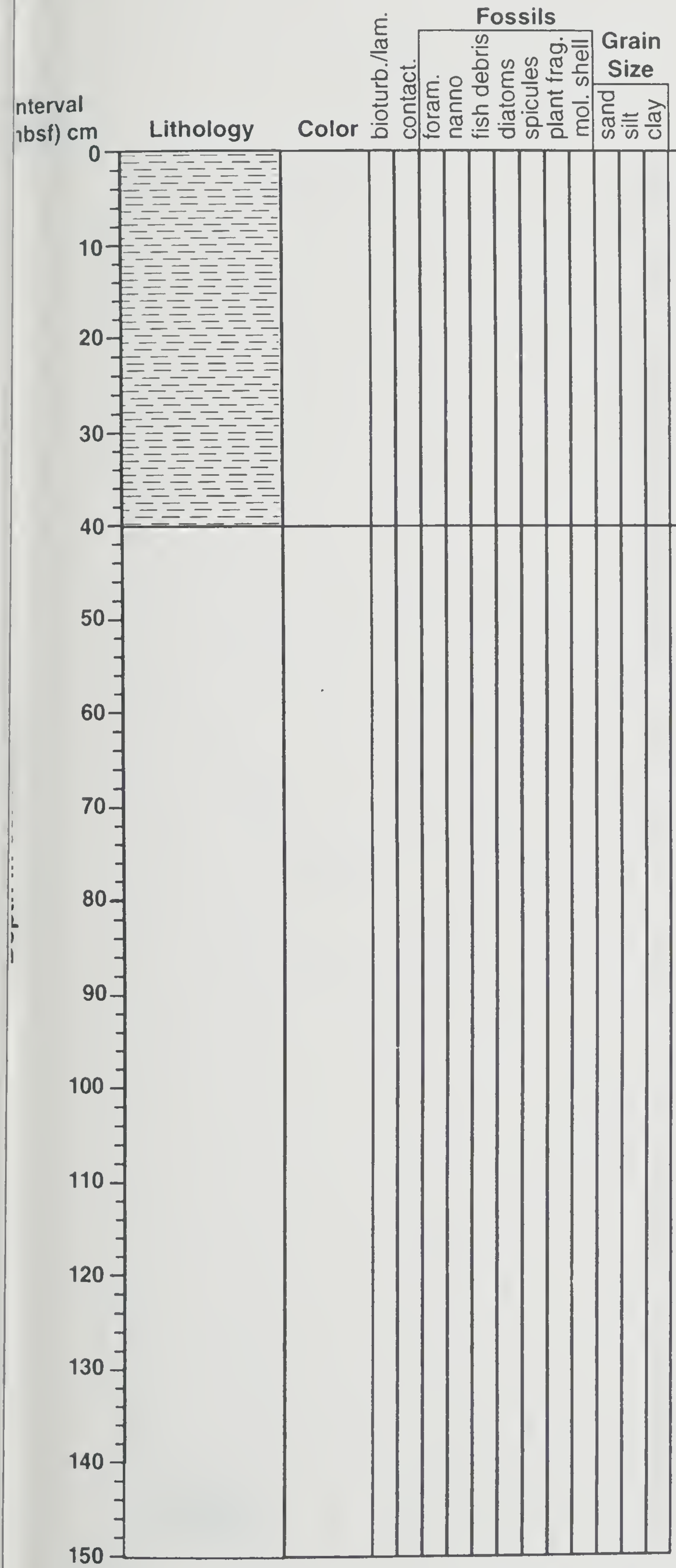
GC5-2 0-2 cm:
Bolivina spissa, Bolivina argentea, Uvigerina sp., Bulimina sp., Cibicides sp., Oridorsalis sp., Cassidulina sp., Globobulimina sp., Gyroidina sp.

GC5-2 100-102 cm;
Cibicides sp., Cassidulina sp., Uvigerina sp., Bulimina sp., Bolivina spissa, Globobulimina sp.

150 cm = bottom sect. 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC5 Sect.: 1 (150-190 cmbsf) Lat.: 28 55.98 N Long.: 116 04.32 W
Water Depth: 1053 m



Remarks

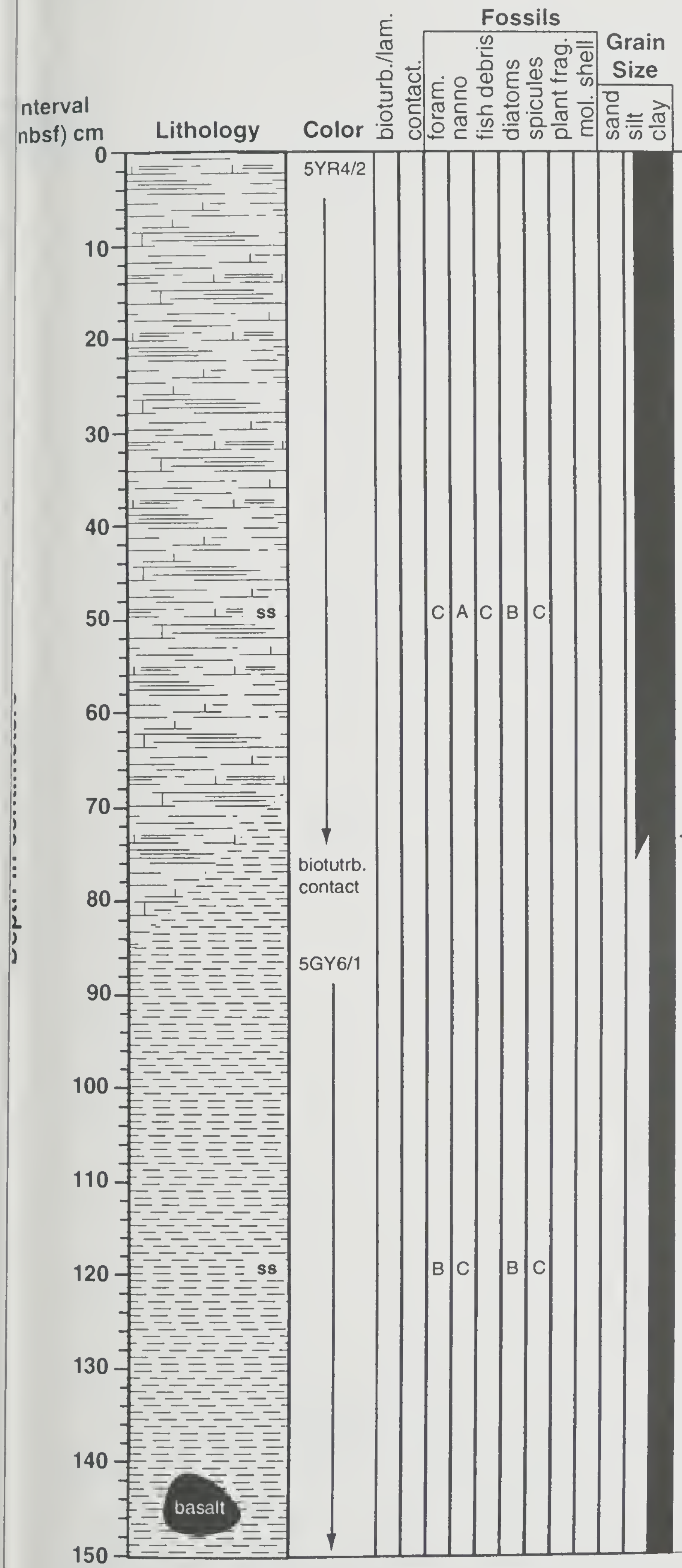
SILTY CLAY (foram-, nanno-bearing):burrow mottling of ol. gray (5Y4/1) with ol. black (5Y2/1)

40 cm = bottom of section; 190 mbsf = base of core GC5

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV   Core: GC6   Sect.: 1 (0-150 cmbsf)   Lat.: 29 02.106 N Long.: 115 24.62 W

Water Depth: 600 m



Remarks

upper (darker) SILTY CLAY (nanno-, foram-bearing): homogeneous; dark yel. brown (10YR4/2)

lower (lighter) CLAY (nanno-bearing): stiff, homogeneous; greenish gray (5GY6/1); green olivine basalt cobbly at base (= kelp-holdfast dropstone?); contact between two lithologies is bioturbated, but may represent an unconformity based on difference in consolidation of lower, lighter green clay.

smear slides

ss 50 cm (upper, dark silty clay)
A: clay; nannos
C: forams; fish debris;sponge spic.; carbonate frags.; angular to subangular lithic frags.
B: diatoms

ss 120 cm (lower, stiff green clay)
A: clay
C: nannos; carbonate frags.;sponge spic.;
R: authigenic carbonate (dolomite?) rhombs.
B: diatoms; forams

- - - - - unconformity?

Most abundant foraminifera

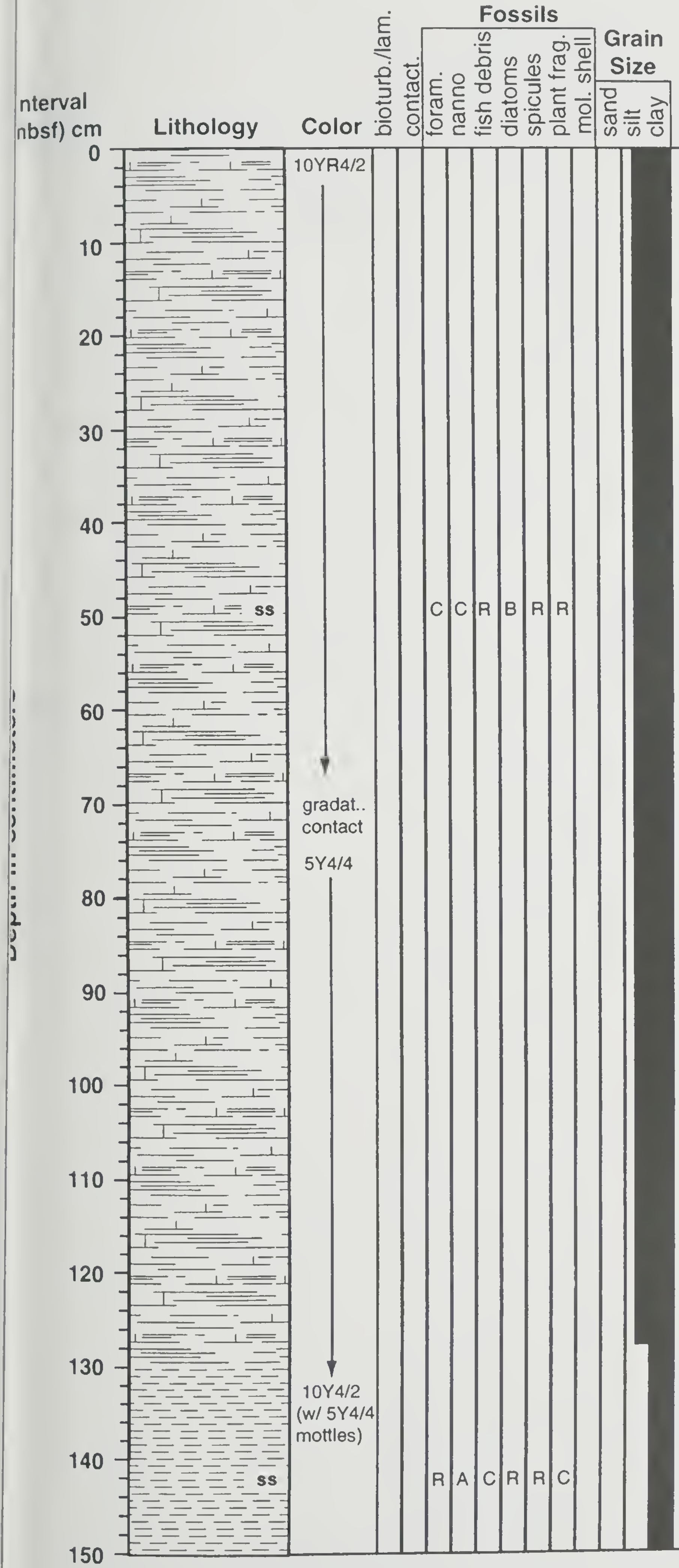
GC6-1 40-42 cm:
B. argentea, Uvigerina sp. Bolivina spissa, Bolivina advena, Epistominella smithi, Cassidulina sp., Cibicides sp., Globobulimina sp., Gyroidina sp., Oridorsalis sp., Angulogerina sp. Bulimina sp.

GC6-1 130-132 cm:
Cibicides sp., Uvigerina sp., Epistominella sp.

150 = bottom sect. 1

Fossils: A=Abundant C=Common R=Rare B=Barren   ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC7 Sect.: 2 (0-150 cmbsf) Lat.: 28 51.12 N Long.: 115 19.91 W
Water Depth: 600 m



Remarks

upper (darker) SILTY CLAY (nanno-, foram-bearing): homogeneous; dark yel. brown (10YR4/2) 0-70 cm, grading to mod. ol. brown (5Y4/4) 70-130 cm

lower (lighter) CLAY (nanno-bearing):130-150 cm; intensely bioturbated with large burrows; grayish olive (10Y4/2) with burrow mottles of 5Y4/4

smear slides

ss 50 cm (upper, dark silty clay)
A: clay; angular to subangular quartz and other lithic frags.
C: forams; nannos; carbonate and lithic frags.
R: sponge spic.; fish debris; palynom
B: diatoms

ss 143 cm (lower, stiff green clay)
A: clay; nannos
C: carbonate and lithic frags.; fish debris; palynom.
R: diatoms; forams; sponge spic.

Most abundant foraminifera

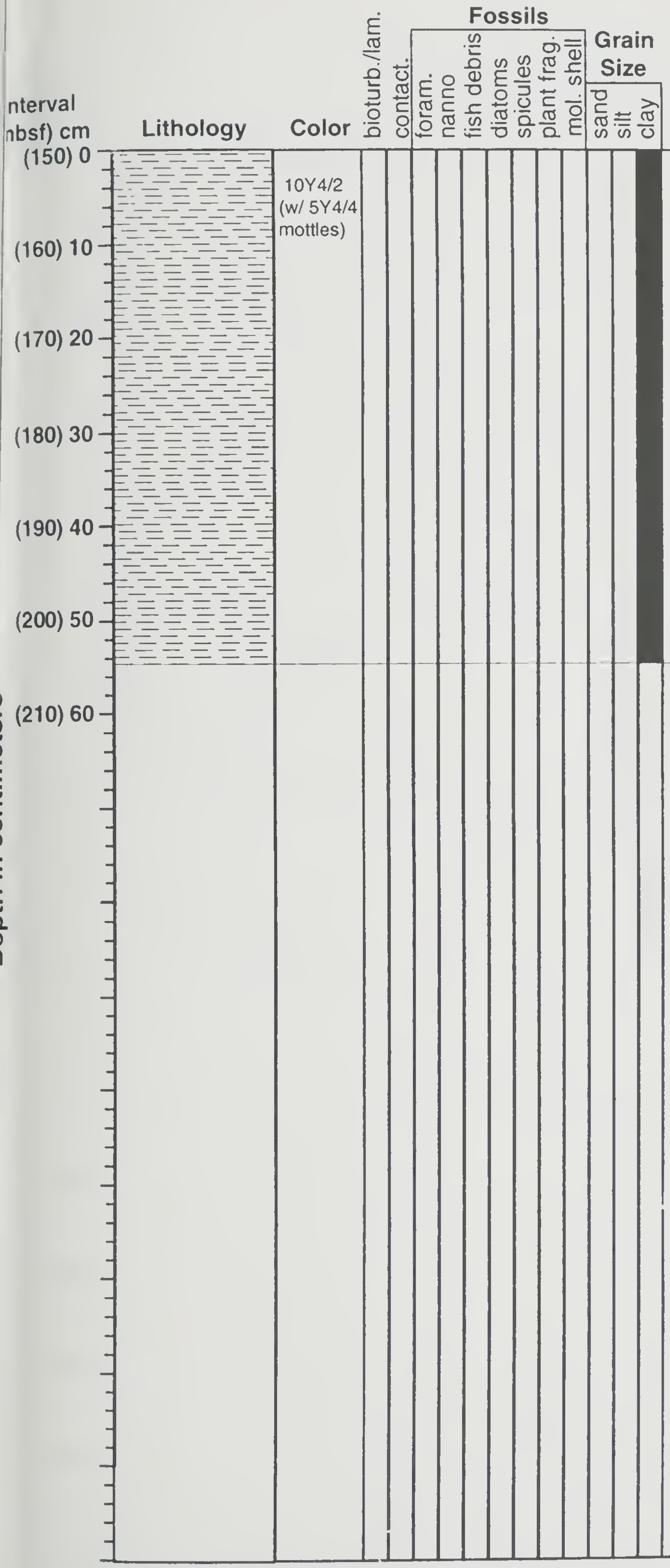
GC7-2 10-12 cm
Uvigerina sp., Bolivina spissa, Bolivina argentea, Cassidulina sp.

150 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC7 Sect.: 1 (150-205 cmbsf) Lat.: 28 51.12 N Long.: 115 19.91 W

Water Depth: 600 m



Remarks

CLAY (nanno-bearing): intensely bioturbated with large burrows; grayish olive (10Y4/2) with burrow mottles of 5Y4/4 (same as bottom of sect.2)

Most abundant foraminifera

GC7-1 10-12 cm:
Bolivina argentea, Uvigerina sp., Epistominella smithi, Cassidulina sp., Bolivina spissa, Bulimina sp., Cibicides sp.

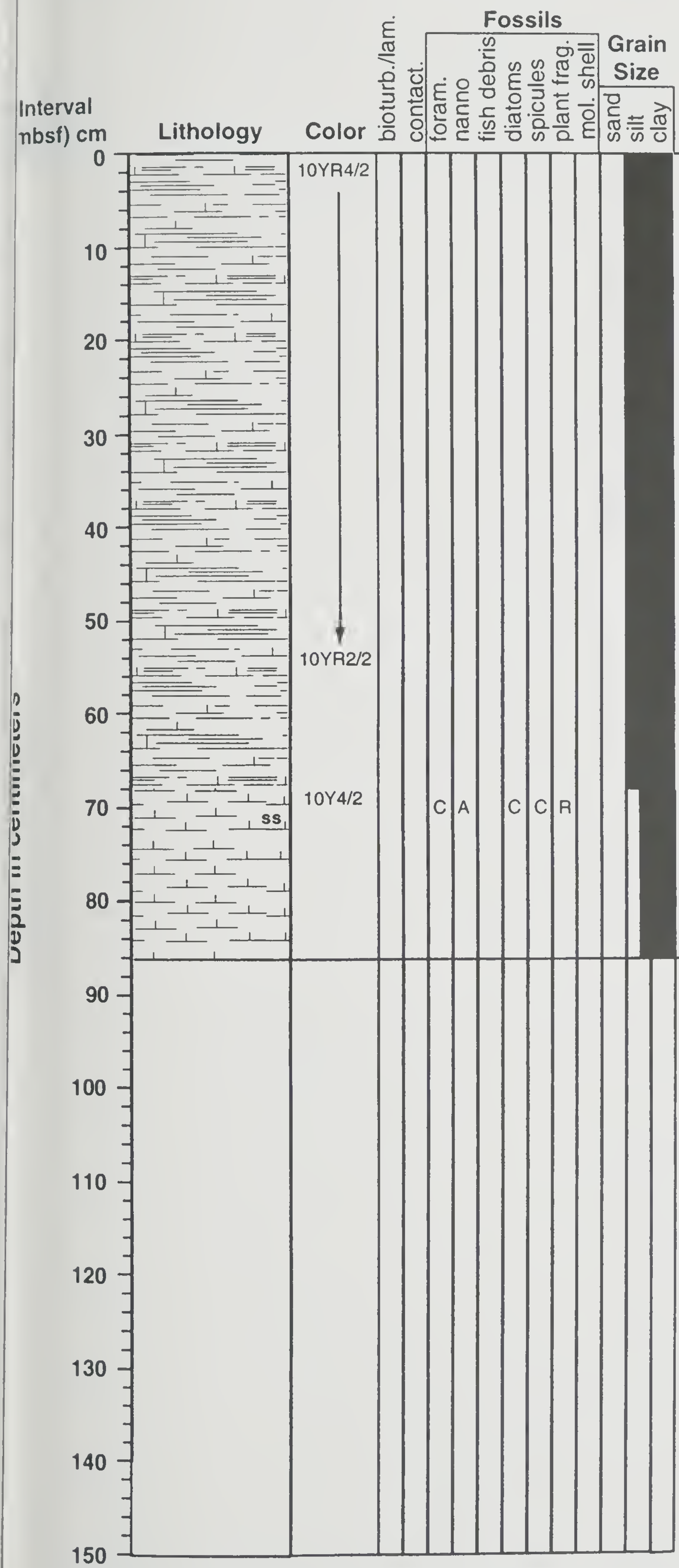
55 cm = bottom of sect. 1; 205 cmbsf = base of core

150 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC8 Sect.: 1 (0-86 cmbsf) Lat.: 27 16.97 N Long.: 114 54.50 W
Water Depth: 670 m



Remarks

CLAYEY SILT (nanno-, foram-bearing): homogeneous (no laminae, no obvious burrows); dark yel. brown (10YR4/2) grading to dusky yel. brown (10YR2/2) at about 55 cm

lower (lighter) SILTY CLAY (nanno-, foram- bearing): 168-86 cm; homogeneous; grayish olive (10Y4/2) with numerous shell fragments

smear slides

ss 70 cm (lower, light silty clay)
A: clay; nannos
C: forams; nannos; carbonate and lithic frags.; sponge spic.; carbonate (dolomite?) rhombs; diatoms (fragments and girdle bands; *Neodenticula; Actinoptychus; Actinocyclus; Coscinodiscus; Paralia; Nitzschia; Navicula; Thalassionema; Thalassiothrix)*
R: palynom.; rads; discoasters (reworked Pliocene?)

Most abundant foraminifra

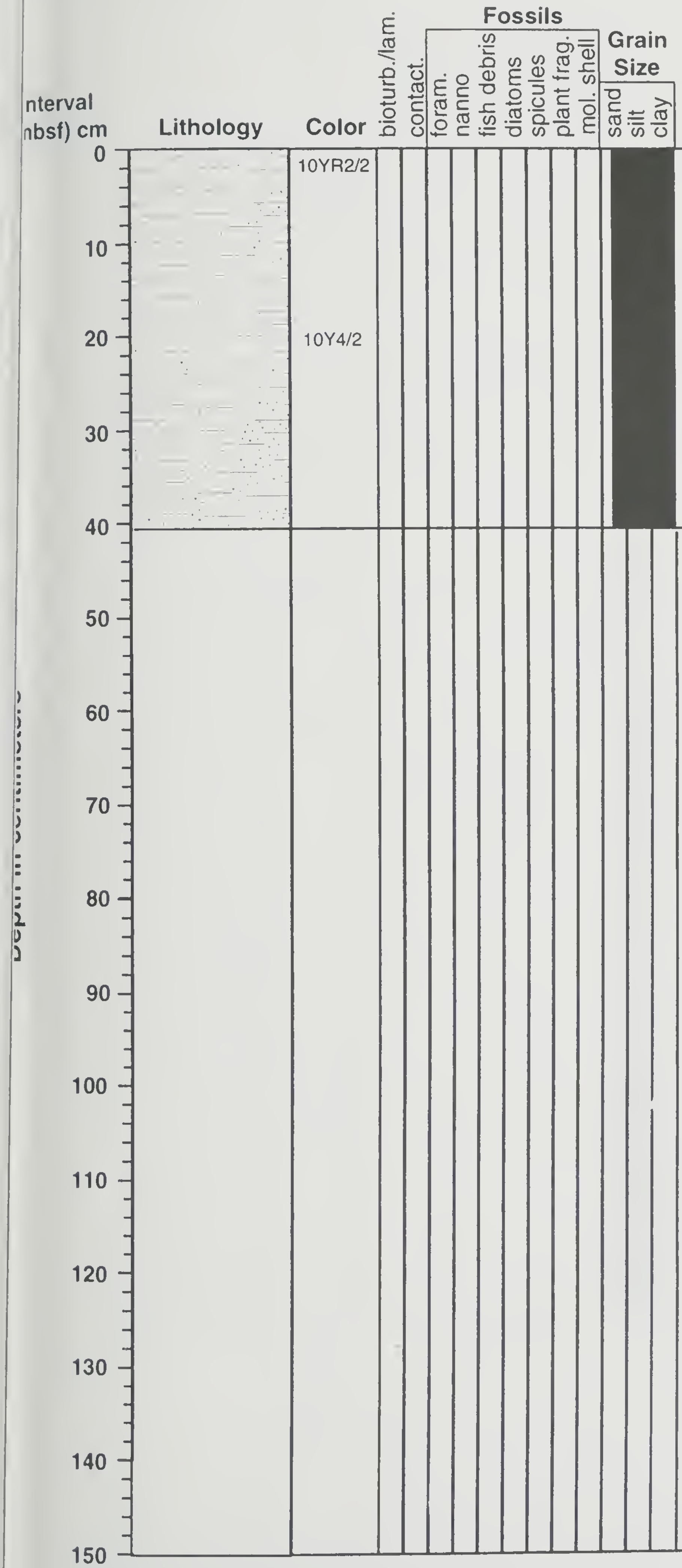
GC8-1 0-2 cm*:*
Bolivina sp., Uvigerina sp., Cibicides sp., Cassidulina sp., Angulogerina sp., Gyroidina sp., Globobulimina sp., Buliminella sp.

86 cm = bottom of section, base of core

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC9 Sect.: 1 (0-41 cmbsf) Lat.: 26 32.28 N Long.: 113 57.25 W

Water Depth: 637 m



Remarks

CLAYEY, SANDY, SILT : homogeneous; dusky yel. brown (10YR2/2), 0-20 cm, grayish olive (10Y4/2) 20-41 cm

Most abundant foraminifera

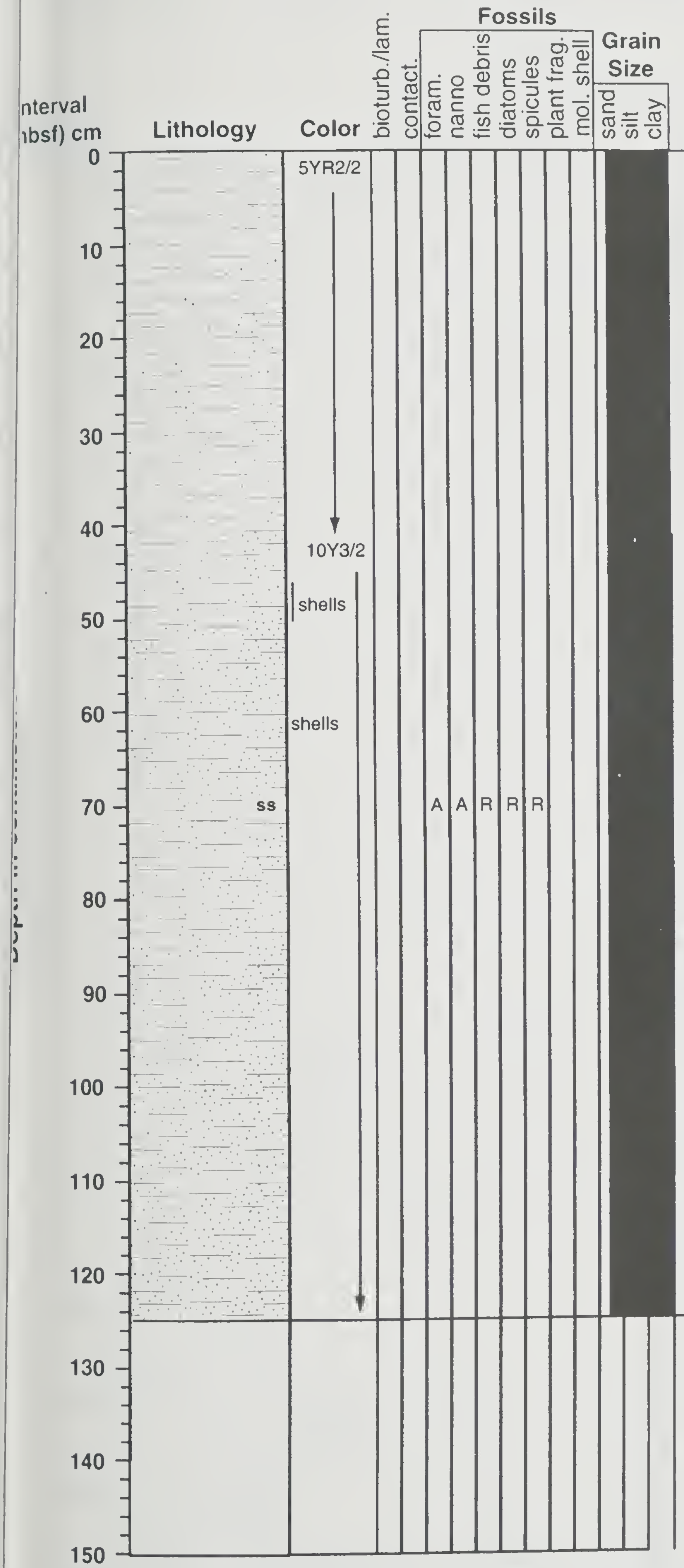
GC9-1 0-2 cm:
Uvigerina sp., Bolivina sp., Cibicides sp., Epistominella sp.

41 cm = bottom of section, base of core

150 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: GC11 Sect.: 1 (125 cmbsf) Lat.: 25 09.72 N Long.: 112 53.62 W
Water Depth: 555 m



Remarks

SANDY, SILT (nanno-, foram-bearing): homogeneous; dusky brown (5YR2/2), 0-40 cm, dusky yel. green (10GY3/2) below 40 cm (gradational (bioturbated?) contact)

smear slides

ss 70 cm

A: clay; nannos; angular to subangular quartz and other lithic frags.
C: nannos;
R: sponge spic.; fish debris; diatoms (a few girdle bands); pyrite; authigenic carbonate rhombs

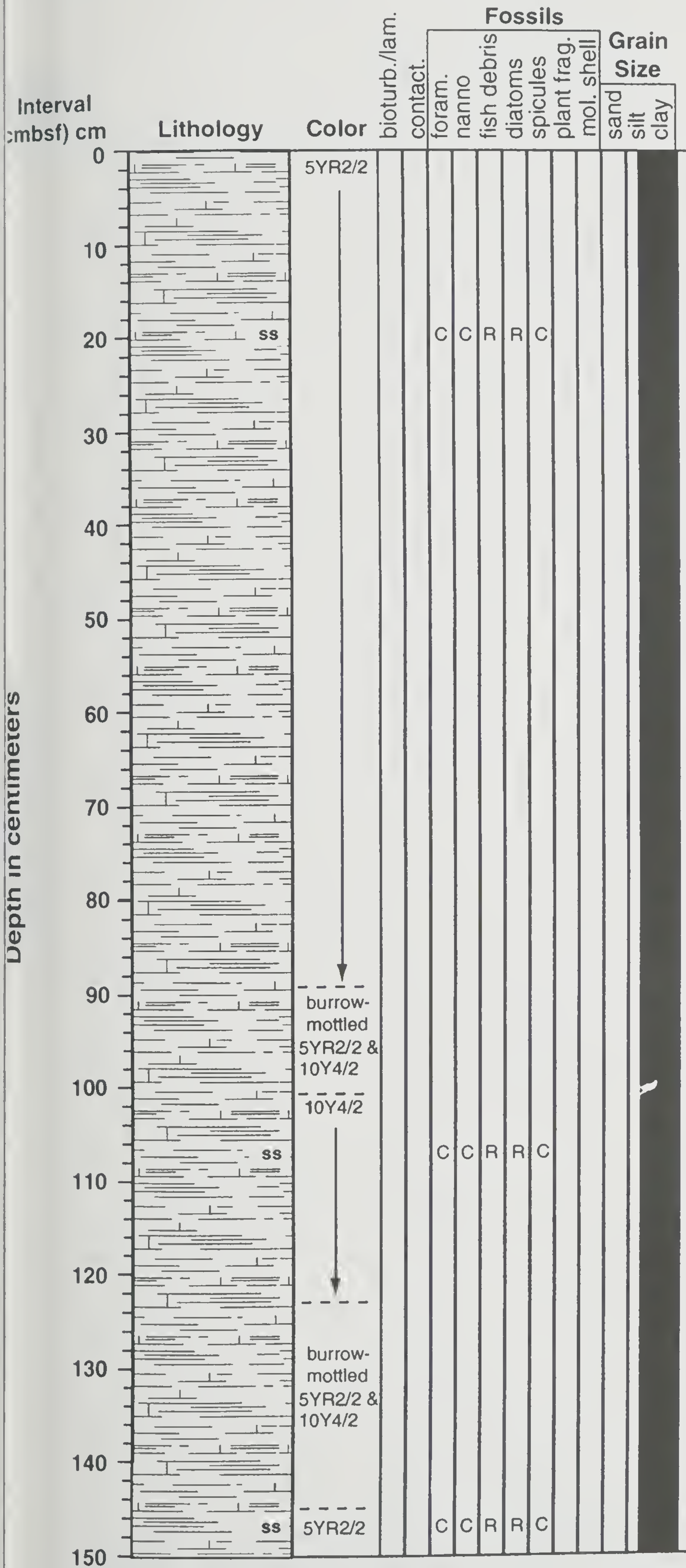
Most abundant foraminifera

GC11-1 0-2 cm:
Bolivina argentea, Bolivina sp., Uvigerina sp., Cibicides sp., Angulogerina sp., Bulimina sp., Cassidulina sp., Epistominella sp.

125 cm = bottom of section, base of core

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC12 Sect.: 2 (0-150 cmbsf) Lat.: 24 41.54 N Long.: 112 42.21 W
Water Depth: 558 m



Remarks

SILTY CLAY (nanno-, foram-bearing): 0-88 cm, homogeneous dusky brown (5YR2/2); 88-101 cm; burrow-mottled transition between upper unit (5YR2/2) with lighter, underlying unit (grayish ol.,10Y4/2),101-123 cm, 123-145 cm, burrow-mottled transition between lighter unit (10Y4/2) and darker, lower unit which appears similar to the top 88 cm (5YR2/2).

smear slides

ss 20 cm
A: clay; angular to subangular quartz and other lithic frags.
C:sponge spic.; nannos; forams;
R: fish debris; diatoms (a few girdle bands); pyrite

ss 107 cm
A: clay; nannos; angular to subangular quartz and other lithic frags.
C: sponge spic.; forams;
R: fish debris; diatoms (a few girdle bands); pyrite; rads

ss 147 cm
A: clay; angular to subangular quartz and other lithic frags.
C: sponge spic.; forams; nannos
R: fish debris; diatoms (a few girdle bands); pyrite; rads

Most abundant foraminifera

GC12-2 0-2 cm:
Bolivina argentea, Bolivina spissa, Uvigerina sp., Cassidulina sp., Blobobulimina sp., Cibicides sp.

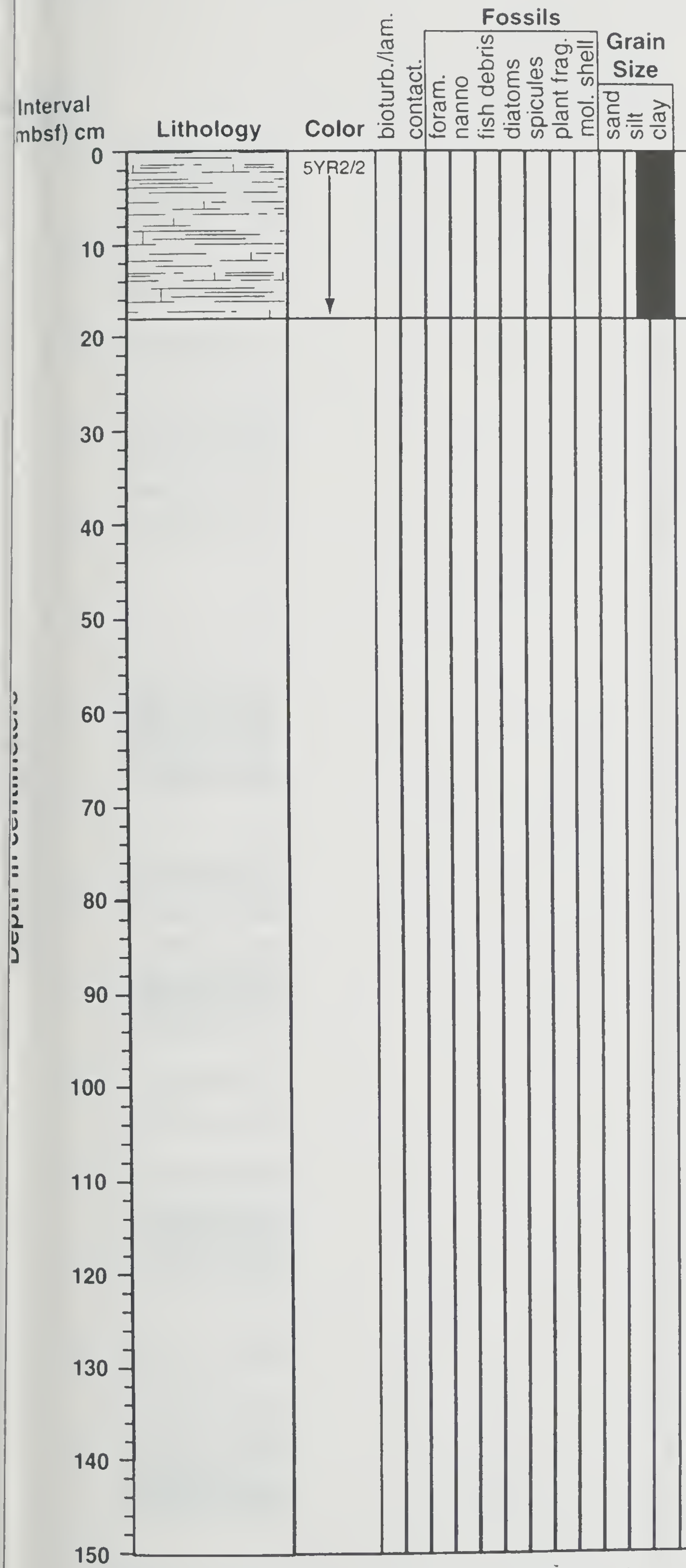
GC12-2 110-112 cm:
Bolivina argentea, Bolivina sp., Uvigerina sp. Cibicides sp., Loxostomum pseudobeyrichi, Angulogerina sp., Buliminella sp., Cassidulina sp.

150 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC12 Sect.: 1 (150-168 cmbsf) Lat.: 24 41.54 N Long.: 112 42.21 W

Water Depth: 558 m



Remarks

SILTY CLAY (nanno-, foram-bearing): continuation of darker, lower unit in section 2 (dusky brown; 5YR2/2).

18 cm = bottom of section 1; 168 cmbsf = base of core GC12

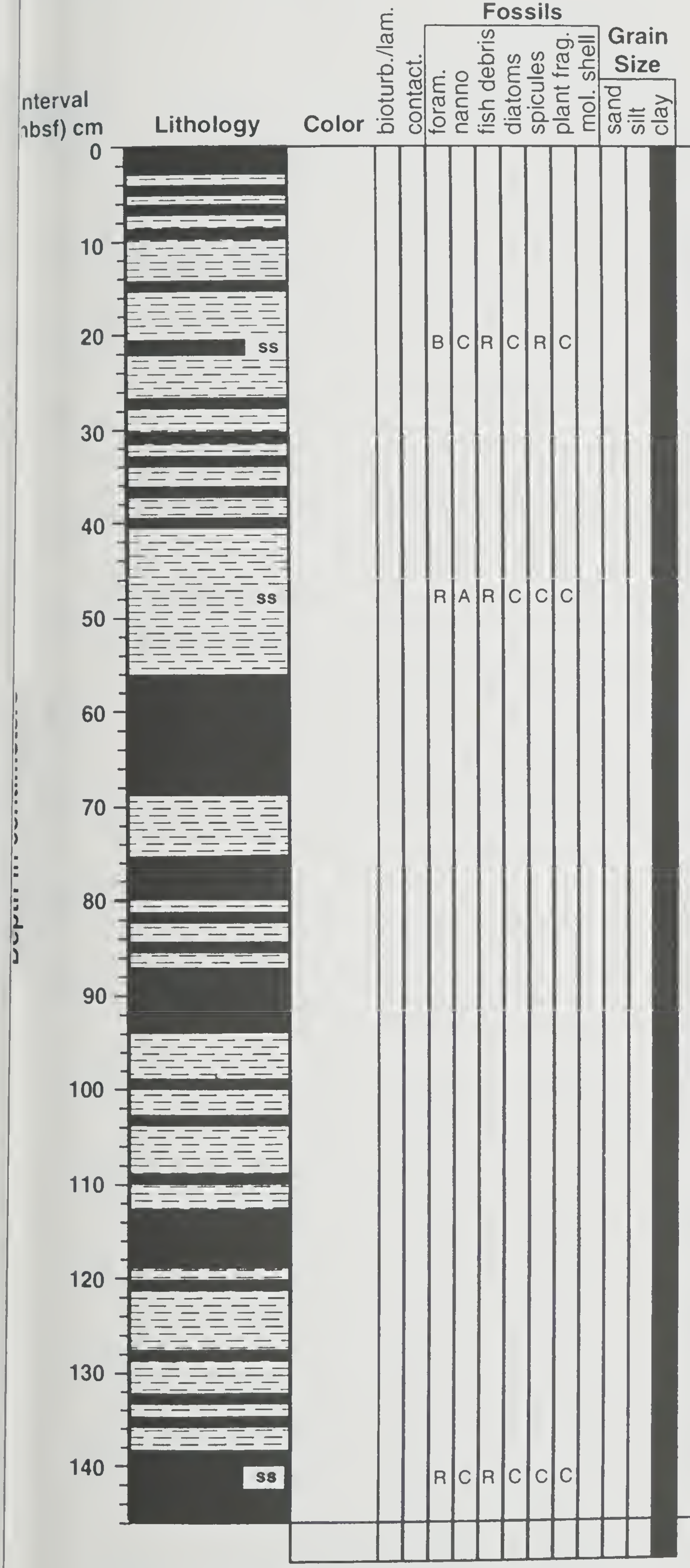
Most abundant foraminifera

GC12-1 0-2 cm:
Bolivina tumida, Bolivina argentea, Bolivina sp., Uvigerina sp., Cassidulina sp., Cibicides sp., Angulogerina sp., Buliminella tenuata, Rutherfordoides cornuta

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC13 Sect.: 2 (0-146 cmbsf) Lat.: 23 38.0 N Long.: 111 48.0 W

Water Depth: 718 m



Remarks

CLAY (nanno-bearing): basic stratigraphy is cm-scale interlayering of light and dark bands. there are some slight variations in color, but the basic colors are:

light: light ol. brown, 5Y5/6 ▤

dark: dusky yel. brown, 10YR2/2 ■

smear slides

ss 22 cm (dark)

A: clay

C: nannos; diatoms; pyrite; palynom.

R: sponge spic.; fish debris; silicoflag.

B: forams

ss 48 cm (light)

A: clay; nannos

C: sponge spic; fish debris; palynom.

R: diatoms; forams; pyrite

ss 141 cm (dark)

A: clay

C: nannos; diatoms; sponge spic; palynom.

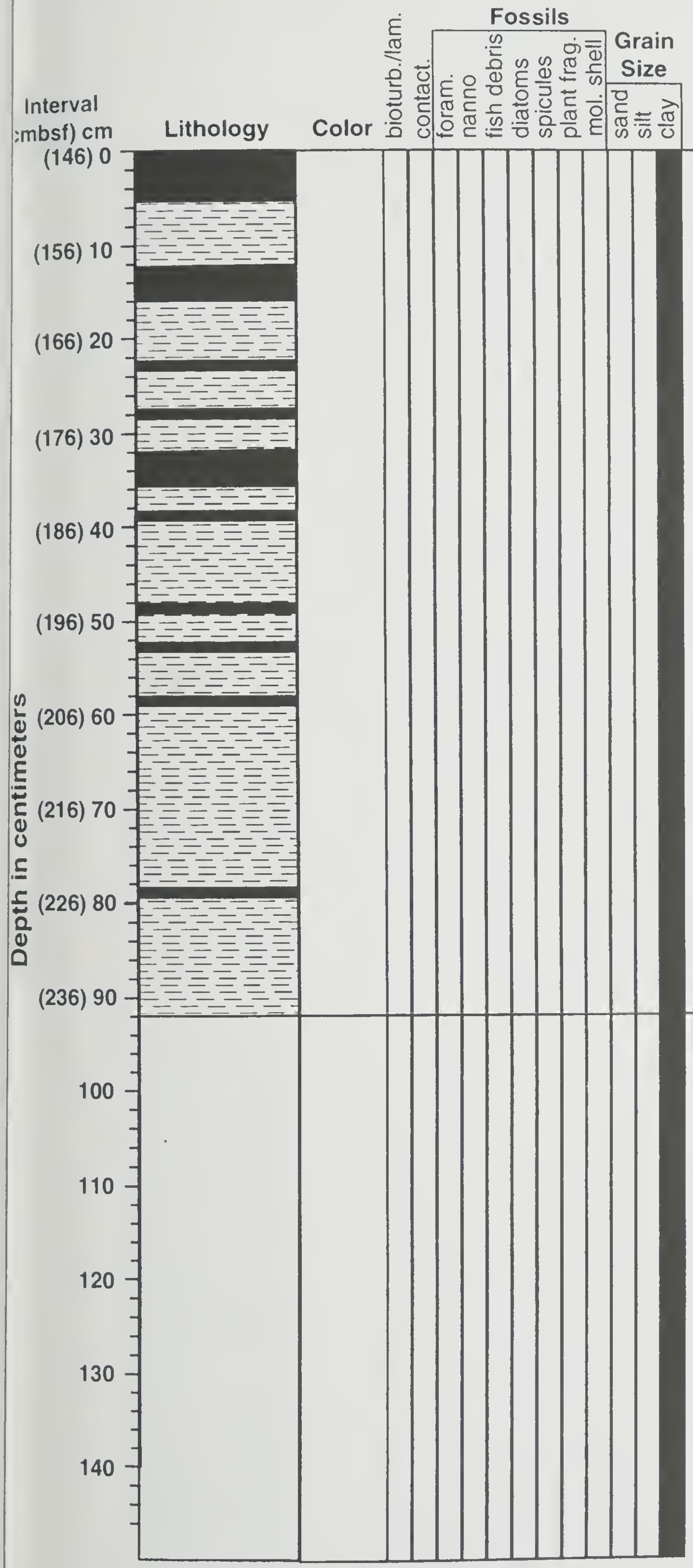
R: fish debris; silicoflag.; forams

146 cm = bottom of section 2

Fossils: X=Present C=Common A=Abundant B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC13 Sect.: 1 (146-238 cmbsf) Lat.: 23 38.0 N Long.: 111 48.0 W
Water Depth: 718 m



CLAY (nanno-bearing): continuation of section 2; basic colors are:

light: light ol. brown, 5Y5/6 ▤

dark: dusky yel. brown, 10YR2/2 ■

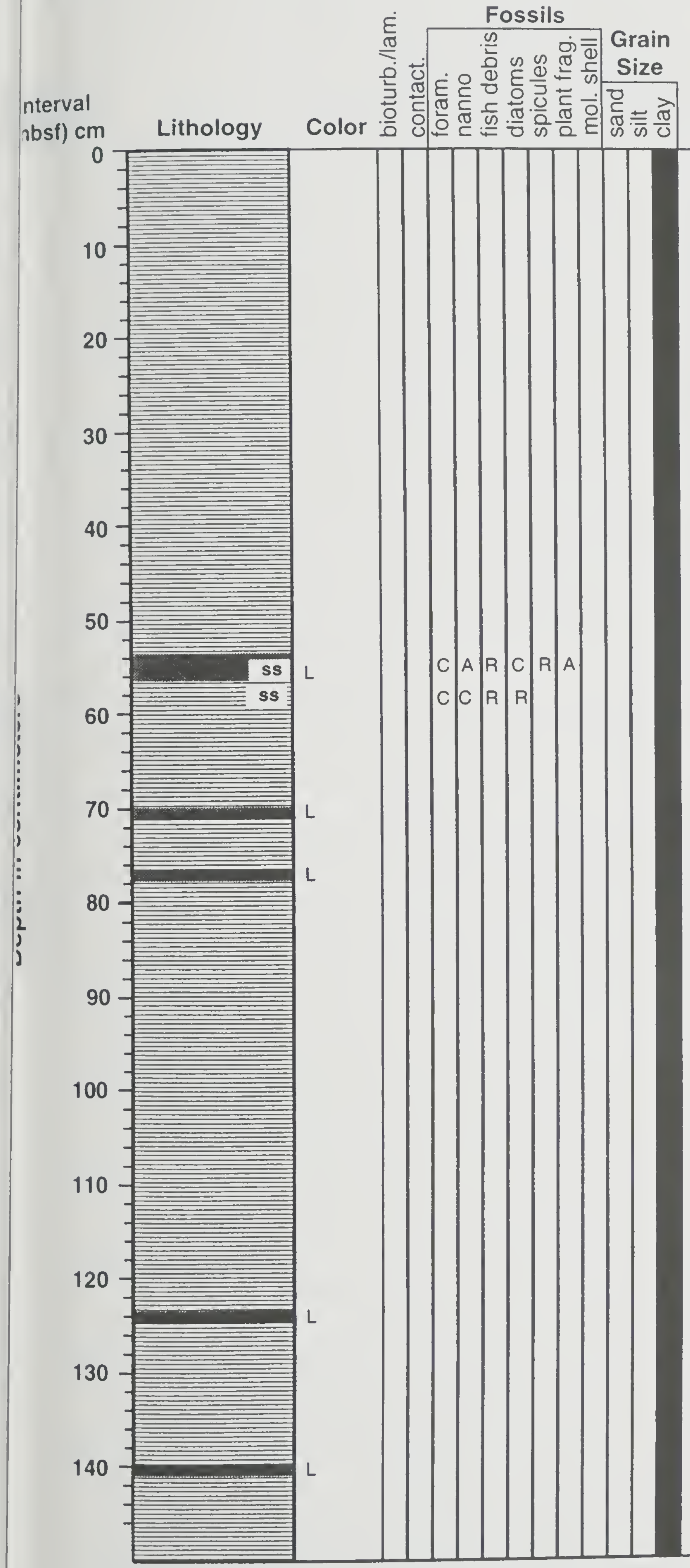
8-92 cm: bioturbated with mottles of darker material (10YR2/2) in light-colored clay (5Y5/6)

92 cm = bottom of section 1; 238 cmbsf = base of core GC13

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC14 Sect.: 2 (0-150 cmbsf) Lat.: 23 35.51 N Long.: 111 43.26 W

Water Depth: 547 m



Remarks

CLAY (nanno-, foram-bearing): dominantly dark (dusky yel. brown; 10YR2/2) with a few lighter bands as indicated (=L; lt. ol. brown, 5Y5/6, to mod. yel. brown,10YR5/4, to dark yel. brown, 10YR4/2). Banding is not nearly as distinct in core GC13. There are hints of very subtle banding in the dark intervals.

smear slides

ss 56 cm (light)
A: clay; palynomorphs; nannos
C: forams; diatoms (*Thalassiosira*; whole valves, fragments, and girdle band
R: sponge spic.; fish debris; silicoflag.; rads

ss 58 cm (dark)
A: clay; nannos
C: sponge spic; fish debris; palynom.
R: forams; silicoflag.; diatoms (*Paralia; Thalassiosira; Coscinodiscus;* centric girdle bands*)*; pyrite; rads

Most abundant foraminifera

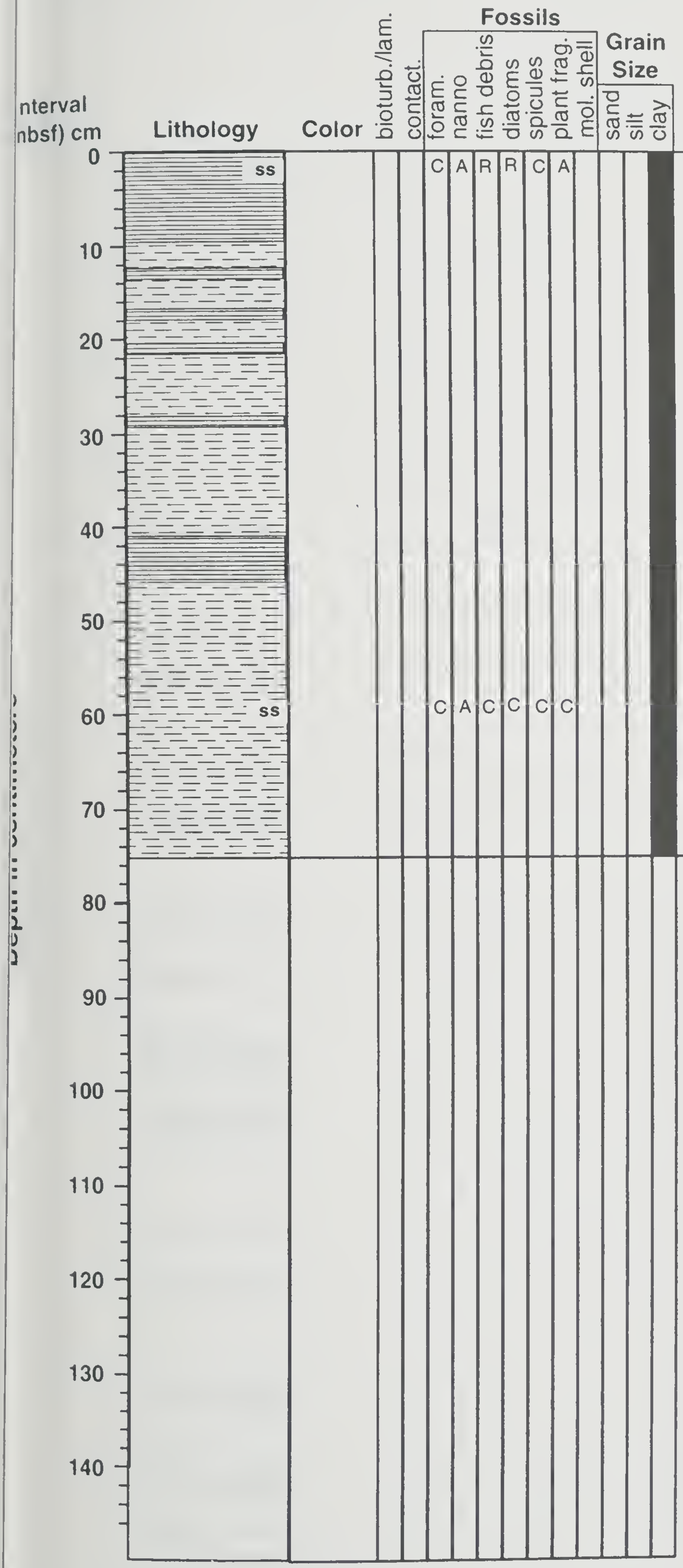
GC14-2 0-2 cm:
Bolivina sp., Buliminella sp., Cassidulina delicata, Angulogerina sp., Uvigerina sp., Cassidulina sp.,

150 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC14 Sect.: 1 (150-225 cmbsf) Lat.: 23 35.48 N Long.: 111 43.25 W

Water Depth: 547 m



CLAY (nanno, foram-bearing): I

0-46 cm: generally dark (grayish olive, 10Y3/2, but with subtle variations) with lighter bands (mod. ol. brown, 5Y4/4, but with subtle variations).

dark: grayish olive, 10YR/2 ▤
light: mod. ol. brown, 5Y4/4 ▭

46-75 cm: generally light-colored, homogenous, bioturbated light ol. brown (5Y5/6)

smear slides

ss 3 cm (dark)
A: clay; palynomorphs; nannos
C: forams; sponge spic.
R: diatoms; fish debris; silicoflag.

ss 60 cm (light)
A: clay; nannos
C: diatoms; pyrite; sponge spic; fish debris; palynom.; forams; pyrite
R: silicoflag.; authigenic carbonate rhombs

75 cm = bottom of section 1; 225 cmbsf = base of core GC14

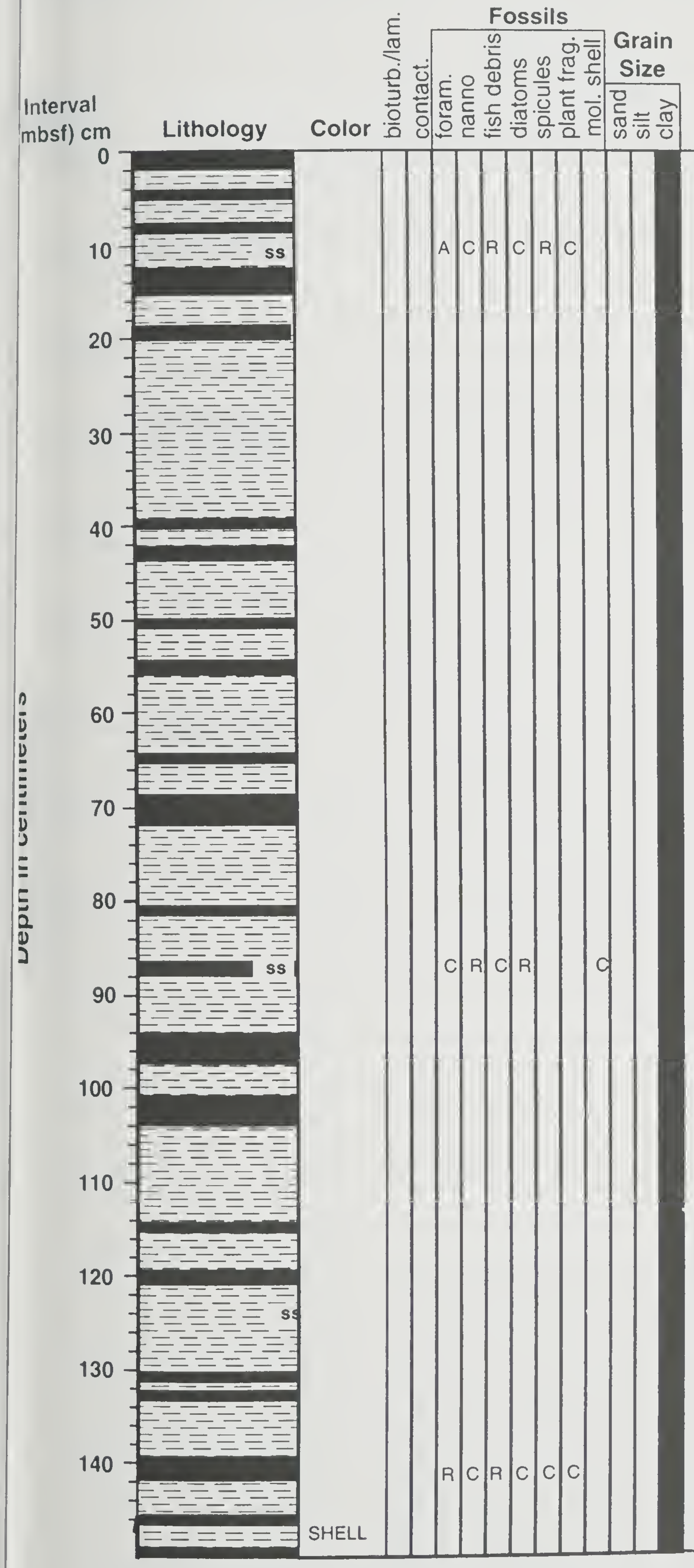
Most abundant foraminifera

GC14-1 40-42 cm:
Uvigerina sp., Angulogerina sp., Bolivina seminuda

GC14-1 50-52 cm:
Bolivina argentea, Bolivina seminuda, Buliminella tenuata, Bolivina sp., Uvigerina sp.

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC15 Sect.: 2 (0-150 cmbsf) Lat.: 23 28.0 N Long.: 111 35.92 W
Water Depth: 712 m



150 cm = bottom of section 2

Remarks

CLAY (foram-, nanno-bearing): basic stratigraphy is cm-scal interlayering of light and dark bands. there are some slight variations in color, but the basic colors are

dark: ol. black, 5Y2/1; sharp boundaries ■
light: dusky yel. brown, 10YR2/2; diffuse boundaries ▤

smear slides

ss 11 cm (light)
A: clay; forams
C: nannos; diatoms (*Nitzchia marina, Thalassionema nitzschioides, Thalassiothrix sp., Coscinodiscus sp., Paralia ?sulcata, Actinoptychus sp, girdle bands, Chaetoceros* resting spores, Triceratium sp., Thalassiosira sp.) ; pyrite; palynom; lithic fragments.
R: sponge spic.; fish debris; silicoflag.; rads

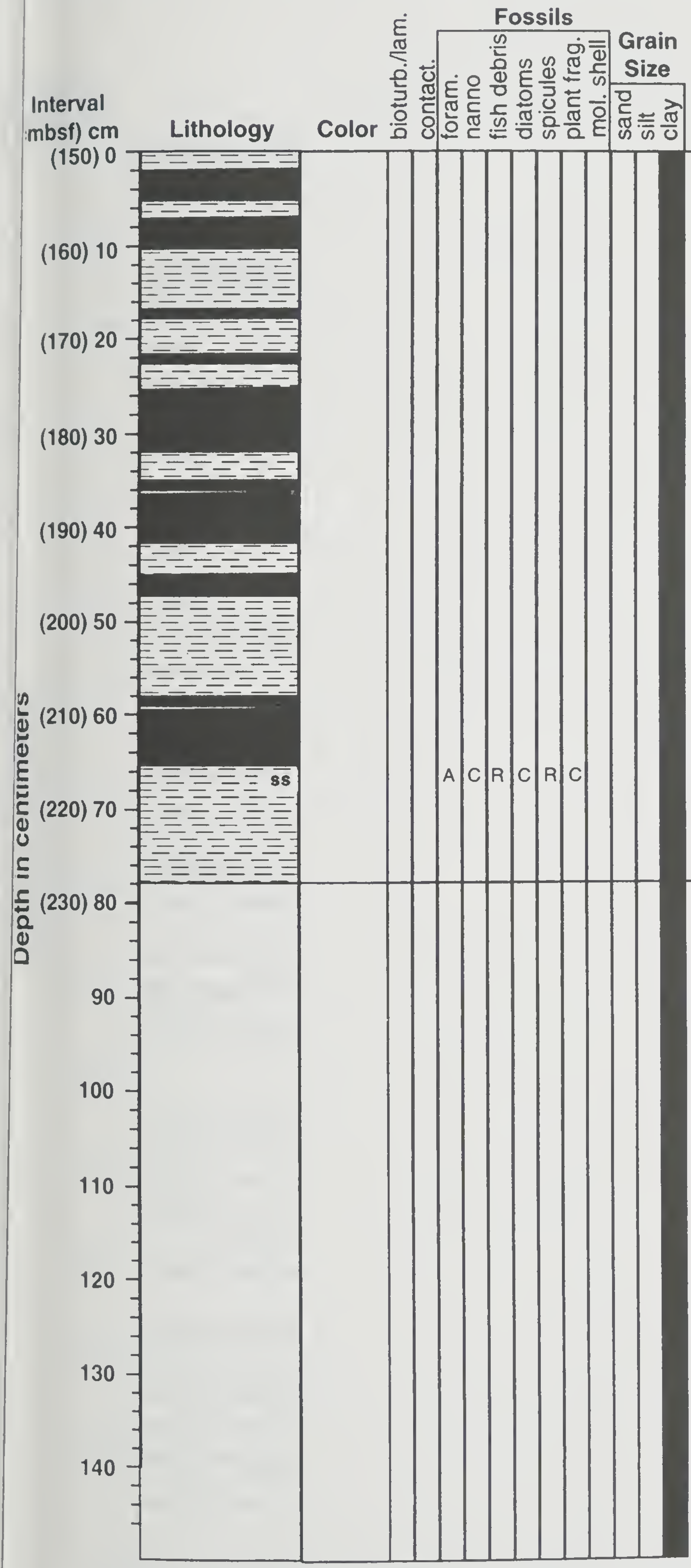
ss 87 cm (dark)
A: clay; forams
C: nannos; sponge spic; palynom.; pyrite; lithic fragments
R: fish debris; silicoflag.; diatoms a few girdle bands)

Most abumdant foreaminifera

GC15-2 0-2 cm:
Bolivina sp., Loxostomum pseudobeyrichi, Uvigerina sp., Angulogerina sp.

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC15 Sect.: 1 (150-230 cmbsf) Lat.: 23 28.0 N Long.: 111 35.92 W
Water Depth: 712 m



Remarks

CLAY (foram-, nanno-bearing): continuation of section 2;
basic colors are:
light: dusky yel. brown, 10YR2/2 ▤
dark: ol. black, 5Y2/1 ■

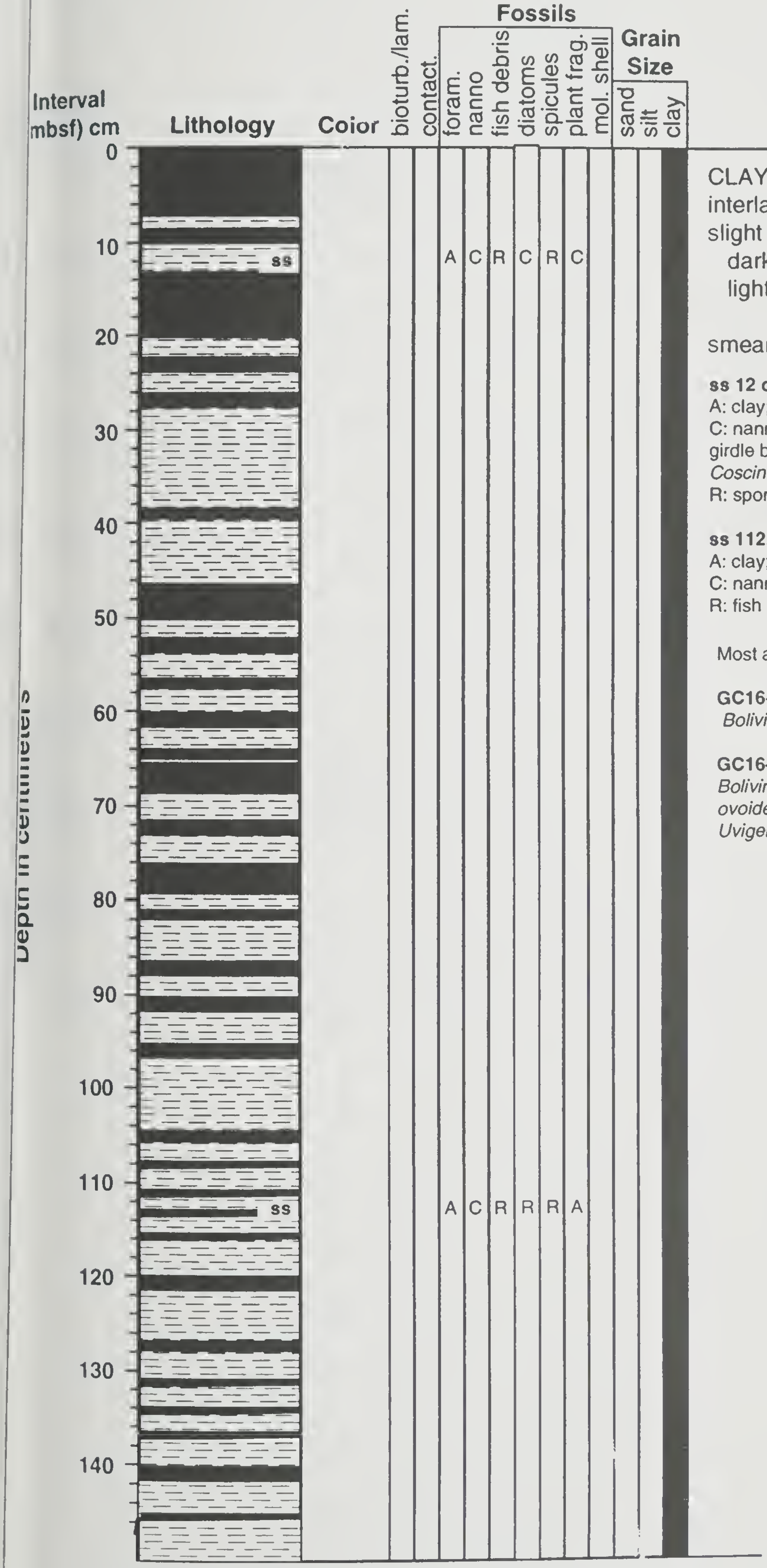
smear slides

ss 67 cm (light)
A: clay
C: forams; nannos; diatoms (*Chaetoceros* resting spores, *Thalassiothrix sp., Actinoptychus sp., Thalassionema nitzschioides, Hemidiscus, Nitzschia spp.*, girdle bands and fragments); lithic fragments.; sponge spic
R: fish debris; silicoflag.; rads

78 cm = bottom of section 1; 228 cmbsf = base of core GC17

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC16 Sect.: 2 (0-150 cmbsf) Lat.: 23 27.57 N Long.: 111 25.96 W
Water Depth: 680 m



CLAY (foram-, nanno-bearing): basic stratigraphy is cm-scal interlayering of light and dark bands. there are some slight variations in color, but the basic colors are

dark: ol. black, 5Y2/1; sharp boundaries ■
light: dusky yel. brown, 10YR2/2; diffuse boundaries ▤

smear slides

ss 12 cm (light)
A: clay; forams
C: nannos; diatoms (*Nitzchia ?marina, Paralia, Azpeitia nodulifer,* girdle bands, *Chaetoceros* resting spores, *Triceratium sp., Coscinodiscus sp.*) ; pyrite; lithic fragments.
R: sponge spic; .rads; lithic frags.

ss 112.5 cm (dark)
A: clay; forams; palynom.
C: nannos; pyrite; lithic fragments
R: fish debris; sponge spic; silicoflag.; rads; diatoms a few girdle bands)

Most abundant foraminifera

GC16-2 0-2 cm
Bolivina sp., Buliminella tenuata

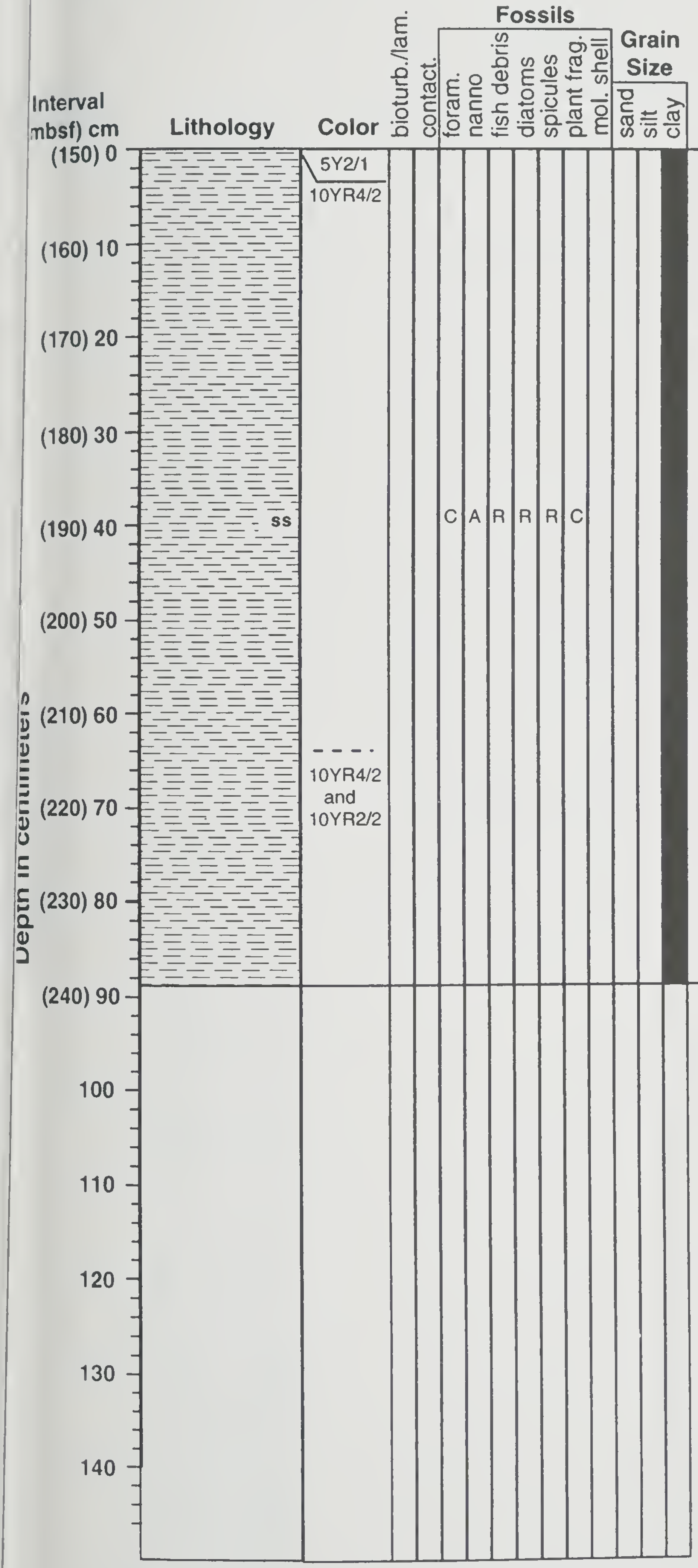
GC16-2 147-149 cm
Bolivina seminuda, Bolivina sp., Buliminella tenuata, Chilosominella ovoidea, Cassidulina sp., Nonionella stella, Angulogerina sp., Uvigerina sp.

150 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC16 Sect.: 1 (150-239 cmbsf) Lat.: 23 27.57 N Long.: 111 25.96 W

Water Depth: 680 m



Remarks

CLAY (foram -, nanno-bearing): homogeneous dark yel. brown, 10YR4/2 to 64 cm; mottled (bioturbated) 10YR4/2 and 10YR2/2 64-89 cm

smear slides

ss 40 cm (light)
A: clay; nannos
C: forams; palynom; lithic fragments.; pyrite
R: sponge spic.; fish debris; rads; diatoms (a few girdle bands and fragments); authigenic carbonate rhombs

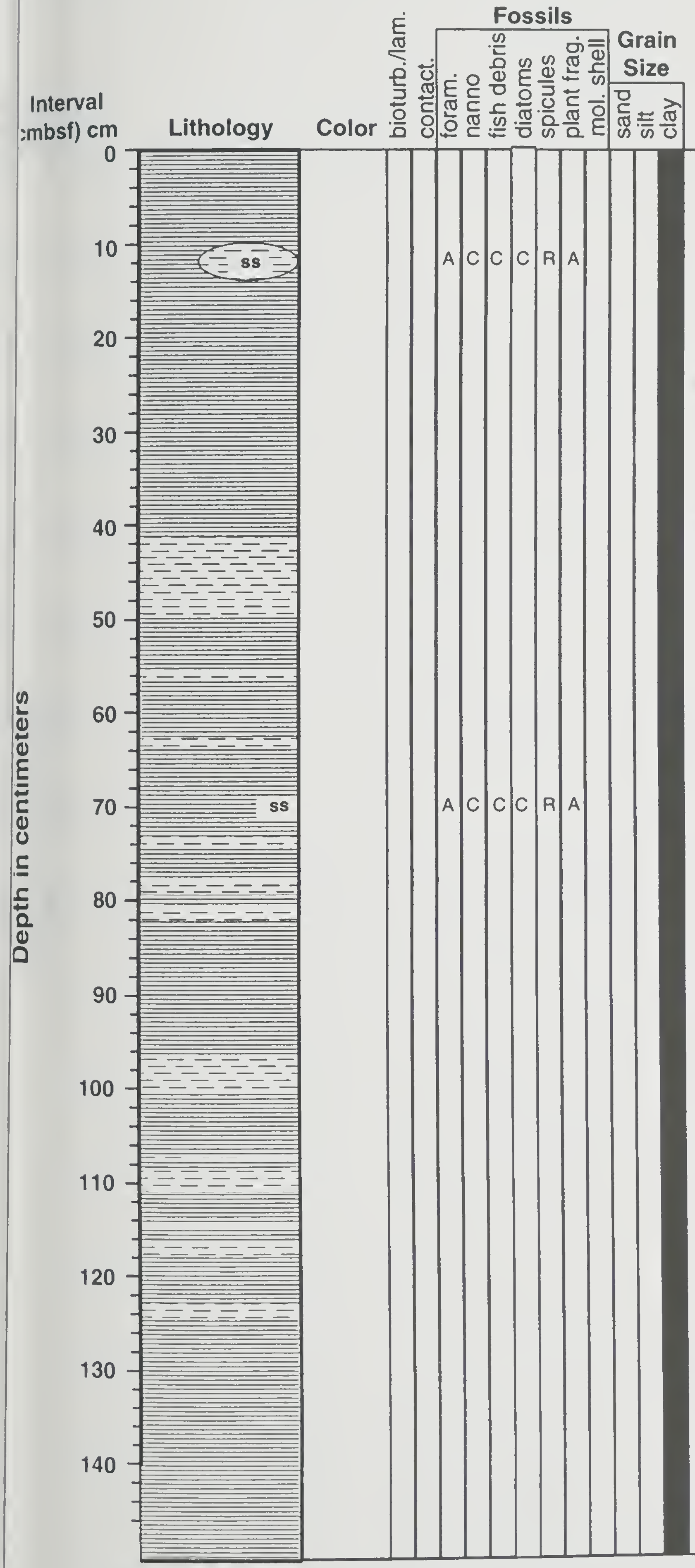
Most abundant foraminifera

GC16-1 10-12 cm
Bolivina seminuda, Bolivina argentea, Bolivina tenuata, Bolivina spissa, Bolivina sp., Rutherfordoides cornuta, Cassidulina delicata, Uvigerina sp.

89 cm = bottom of section 1; 239 cmbsf = base of core GC16

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC17 Sect.: 2 (0-150 cmbsf) Lat.: 23 24.98 N Long.: 111 13.93 W
Water Depth: 712 m



CLAY (organic-rich; foram-, nanno-bearing): interlayering of light and dark bands. there are some slight variations in color, but the basic colors are
dark: ol. black, 5Y2/1 ▤
light: dusky yel. brown, 10YR2/2 ▭

smear slides

ss 12 cm (light pod)
A: clay; forams; palynom.
C: nannos; diatoms (*Azpeitia nodulifer, Thalassionema,* girdle bands, *Chaetoceros* resting spores) ; pyrite; lithic fragments.
R: sponge spic; rads; lithic frags.; volcanic glass

ss 112.5 cm (dark)
A: clay; forams; palynom.
C: nannos; diatoms (*Oscinodiscus; Azpeitia; Ropesic tesselcita;* girdle bands; fragments); pyrite; lithic fragments; fish debris
R: sponge spic; rads

Most abundant foraminifera

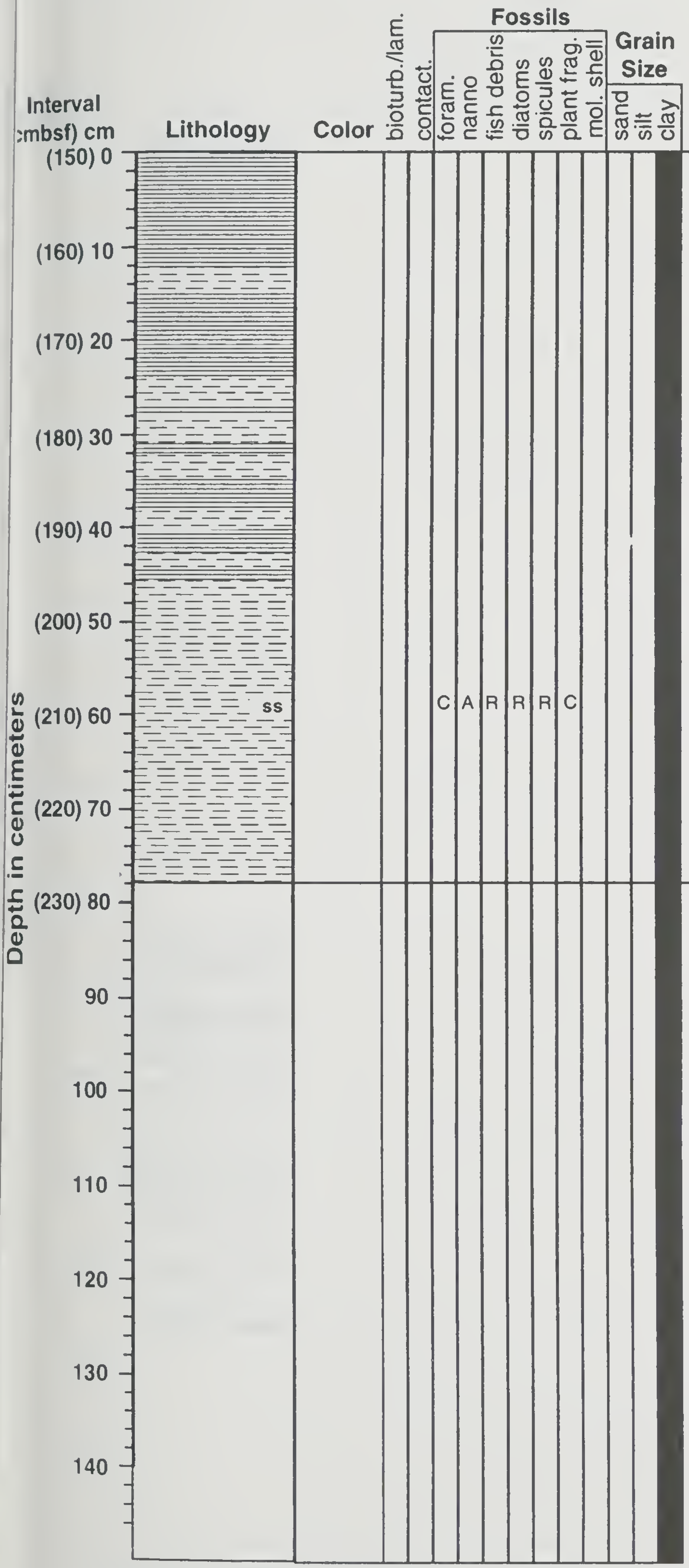
GC17-2 0-2 cm:
Bolivina seminuda, Bolivina argentea, Cassidulina del icata, Buliminella tenuata

150 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC17 Sect.: 1 (150-228 cmbsf) Lat.: 23 28.0 N Long.: 111 13.93 W

Water Depth: 712 m



Remarks

CLAY (foram-, nanno-bearing): continuation of section 2 down to about 48 cm; basic colors are:

light: dusky yel. brown, 10YR2/2 ▭

dark: ol. black, 5Y2/1 ▤

48-78 cm: homogeneous dark yellowish brown (10YR4/2)

smear slides

ss 60 cm

A: clay; nannos

C: forams; lithic fragments.; pyrite; palynom.

R: diatoms (girdle bands and fragments); fish debris; sponge spic; rads

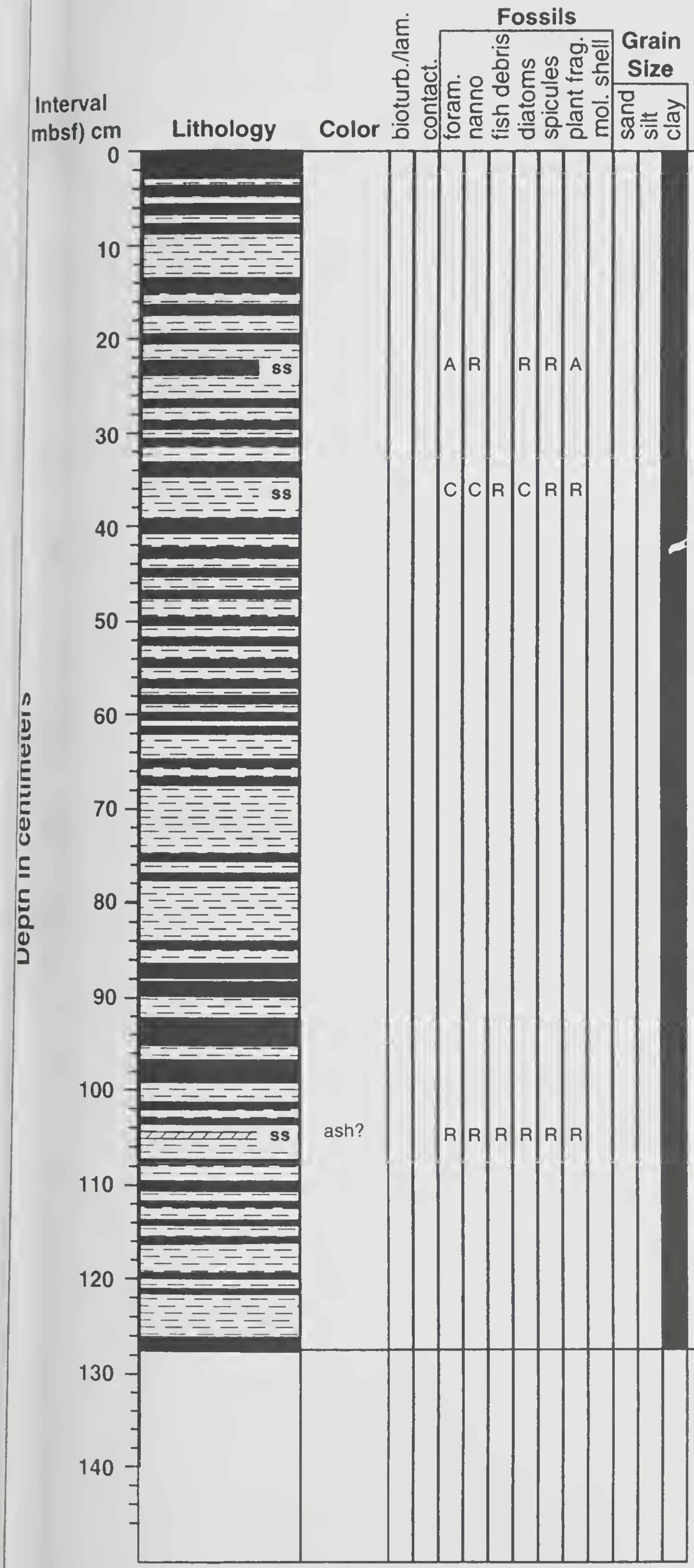
78 cm = bottom of section 1; 228 cmbsf = base of core GC17

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC18 Sect.: 2 (0-127 cmbsf) Lat.: 23 56.63 N Long.: 111 19.79 W

Water Depth: 505 m



Remarks

CLAY (organic-rich, foram-, nanno-bearing): basic stratigraphy is cm-scale interlayering of light and dark bands. There are some slight variations in color, but the basic colors are

dark: ol. black, 5Y2/1 ■
light: dusky yel. brown, 10YR2/2 ▤

light gray (greenish gray, 5GY6/1) clay layer with very sharp upper and lower contacts (volcanic ash?) @ 104 cm

smear slides

ss 24 cm (dark)
A: clay; forams; palynom.
C: nannos; diatoms (*Nitzchia, Thalassienema, Paralia, Azpeitia,* numerous girdle bands, *Chaetoceros* resting spores.) ; pyrite; s.
R: nannos; sponge spic; .rads

ss 37 cm (light)
A: clayh.
C: forams; lithic fragments; distoms (*Azpeitia, Coscinodiscus, girdle bands)*
R: palynom.; nannos; sponge spic; rads; glass shards

ss 104 cm (light gray layer)
A: clay
C: lithic fragments;
R: palynom.; nannos; discoasters; diatoms (fragtments & girdle bands); palynom.;rads; glass shards

Most abundant foraminifera

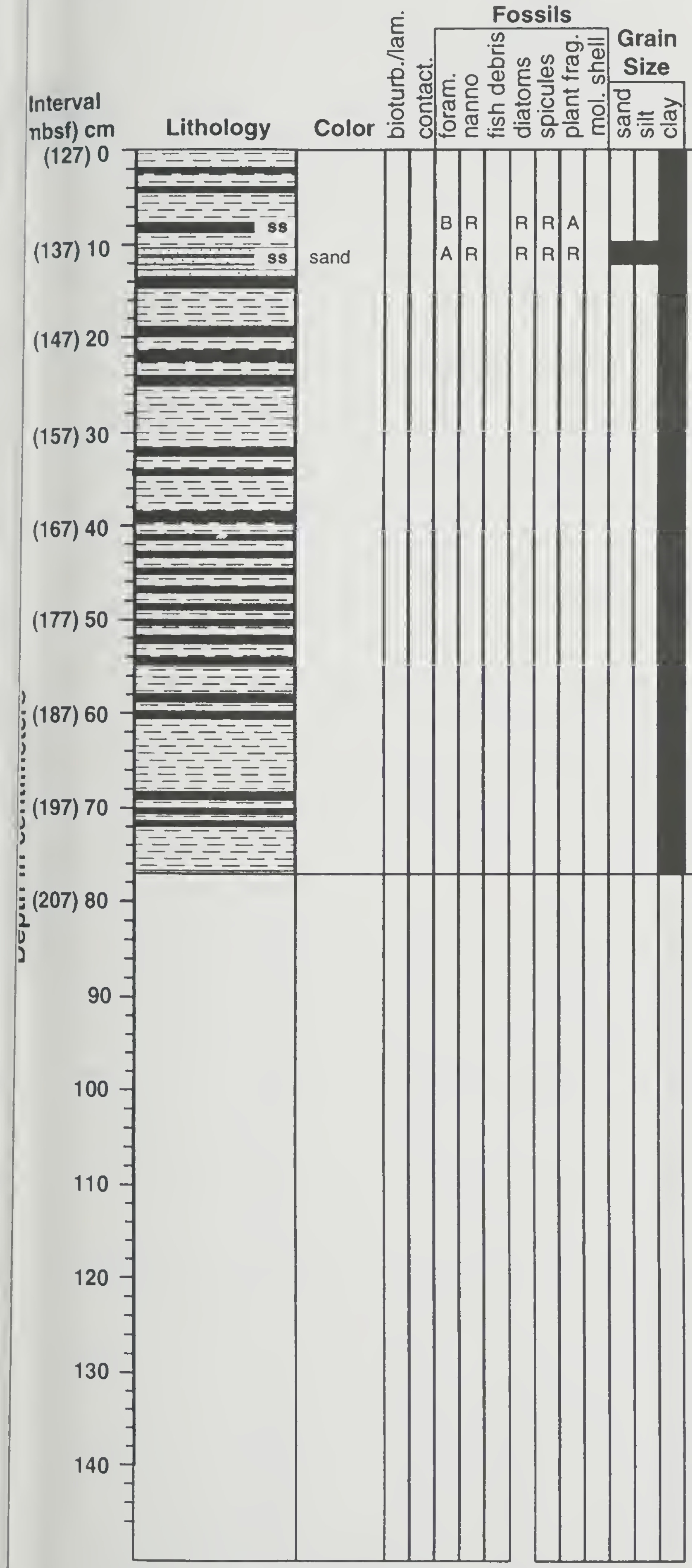
GC18-2 0-2 cm:
Bolivina sp., Bolivina tenuata, Cassidulina delicata

127 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC18 Sect.: 1 (127-204 cmbsf) Lat.: 23 56.63 N Long.: 111 19.79 W

Water Depth: 505 m



Remarks

CLAY (organic-rich):
dark: ol. black, 5Y2/1 ■
light: dusky yel. brown, 10YR2/2 ▤

thin sand layers 10-13 cm; phosphate? nodule @ 25 cm

smear slides

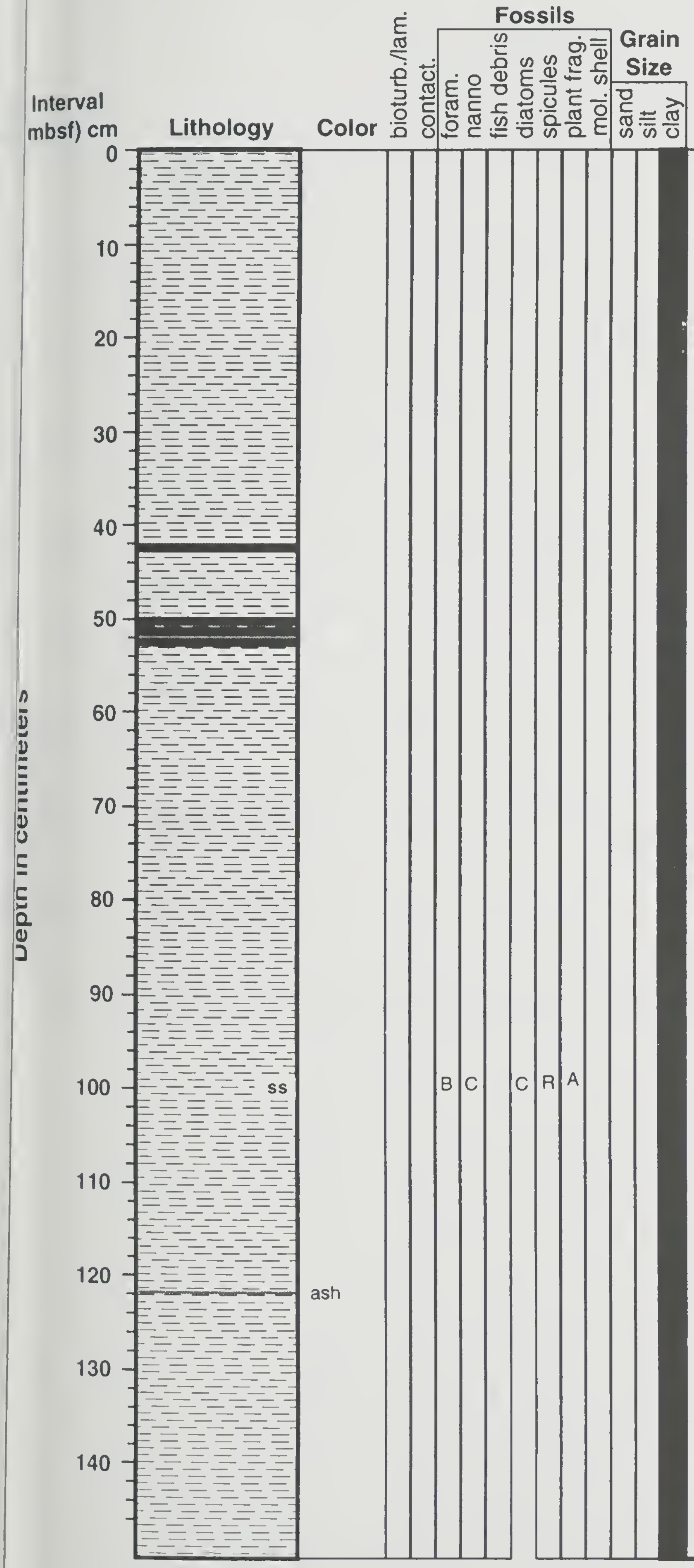
ss 8 cm (dark)
A: clay; palynom.
C: lithic frags
R: pyrite; nannos; diatoms (girdle bands); sponge spic.; discoasters; rads
B: forams

ss 11 cm (sand)
A: forams; lithic frags.
C: clay
R: palynom.; diatoms; nannos; authigenic carbonate rhombs

77 cm = bottom of section 1; 204 cmbsf = base of core GC18

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC19 Sect.: 2 (0-150 cmbsf) Lat.: 23 55.24 N Long.: 111 18.47 W
Water Depth: 540 m



CLAY (organic): homogeneous ol. black, 5Y2/1 with several lighter layers (mod. yel brown, 5Y5/6); 2-cm-thick volcanic ash (?) layer at 122 cm

smear slides

ss 100 cm
A: clay; palynom.
C: diatoms (*Thalassionema; Cocconeis; Coscinodiscus; Cyclotella; Achnanthes*; *Thalassiosira; Paralia; Azpeitia; Nitzschia* numerous girdle bands)
R: nannos; silicoflag.; rads
B: forams

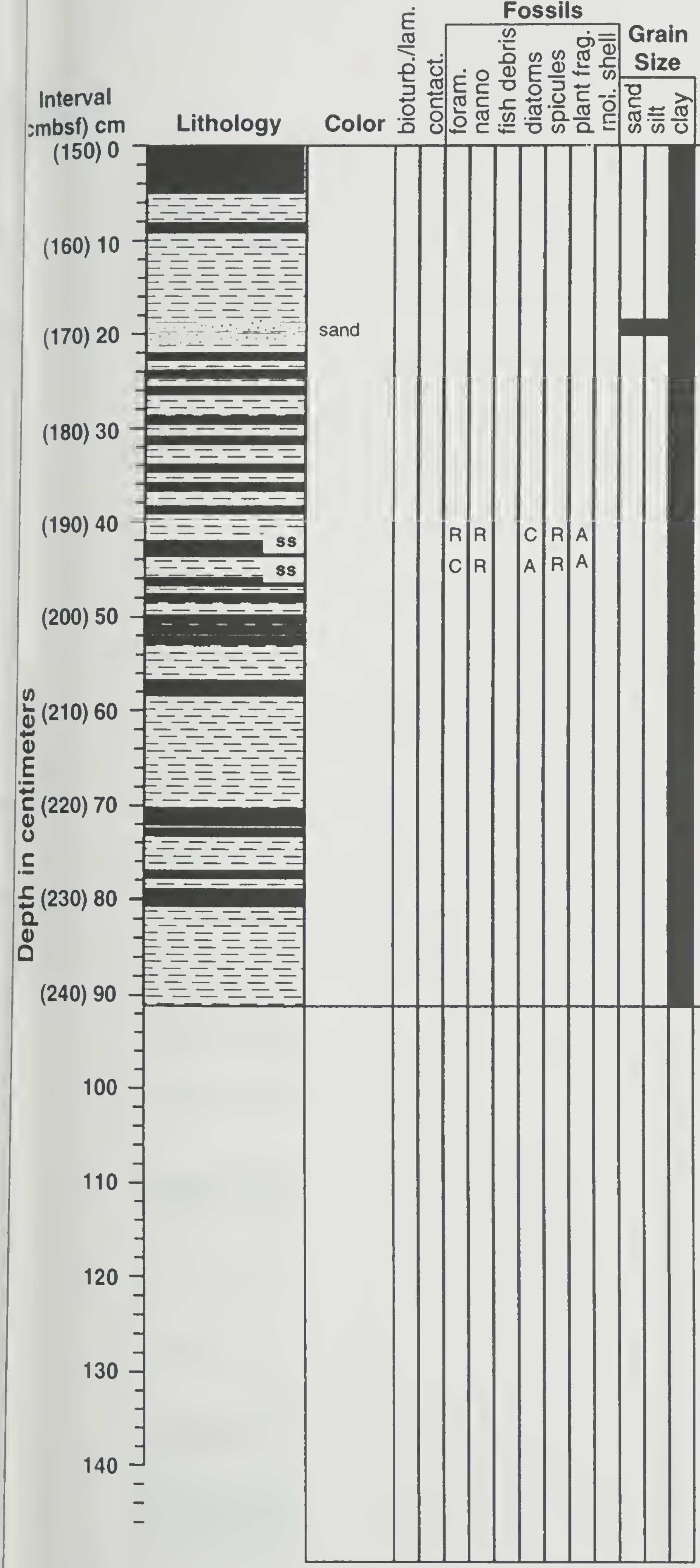
Most abundant foraminifera

GC19-2 0-2 cm: *Bolivina sp., B. tenuata*

15 0 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC19 Sect.: 1 (150-241 cmbsf) Lat.: 23 55.24 N Long.: 111 18.47 W
Water Depth: 540 m



Remarks

CLAY (organic-rich, nanno-bearing):
dark: ol. black, 5Y2/1 ■
light: lt ol. brown, 15Y5/6 ▤
(slightly darker below 55 cm = dark yel. brown, 10YR4/2)

sand layer @ 20-21 cm, very pale orange, 10YR8/2

smear slides

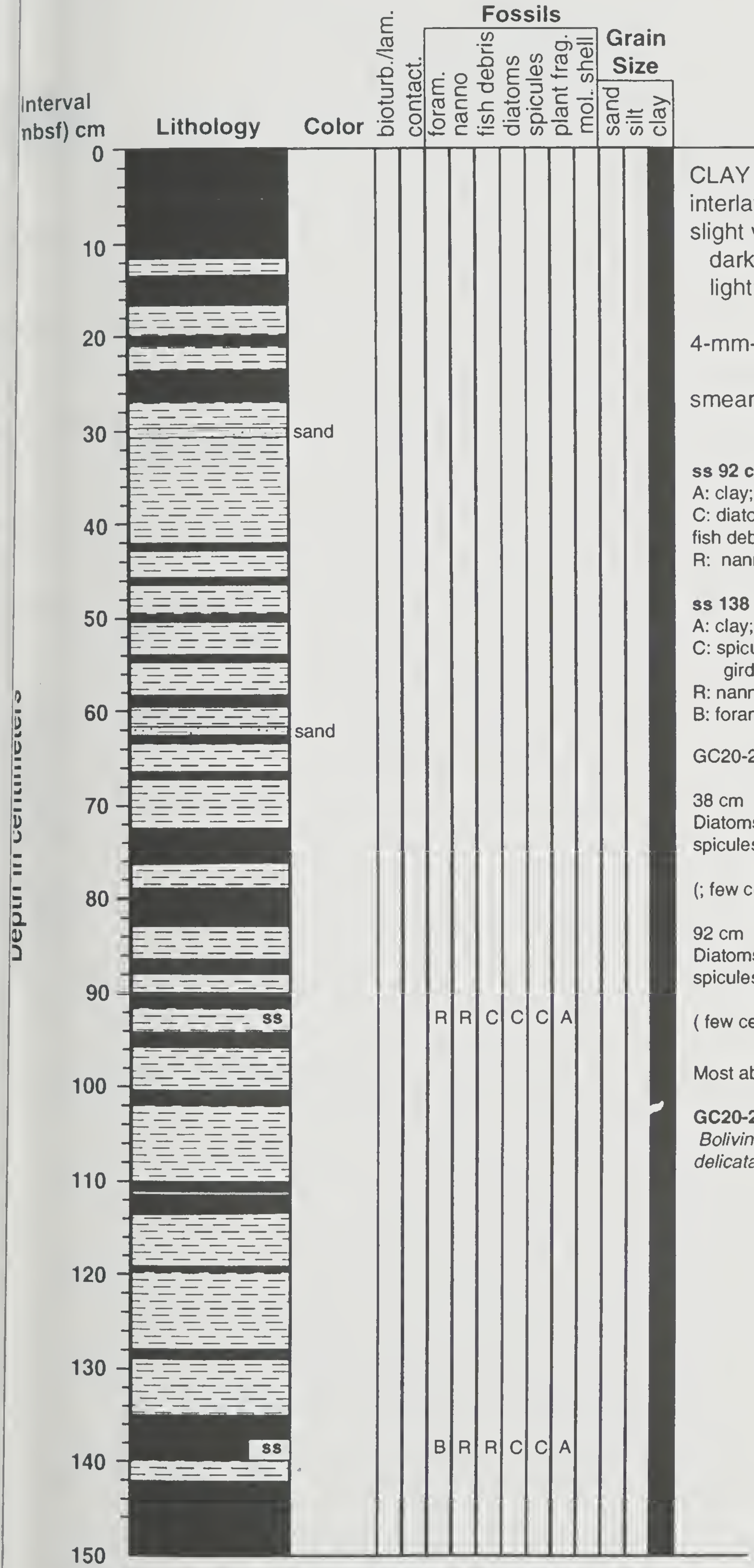
ss 42 cm (dark)
A: clay; palynom.
C: diatoms (*Azpeitia; Thalassionema; Paralia; Nitzschia; Lyrella; Cocconeis; Cyclotella; Thalassiosira; Surirella; Actinoptychus; Chaetoceros* resting spores; girdle bands) ; pyrite
R: nannos; sponge spic; forams; rads; silicoflag.;

ss 44 cm (light)
A: clay; palynom; diatoms (*Azpeitia; Thalassionema; Nitzschia; Paralia; Neodenticula; Surirella; Coscinodiscus; Cyclotella; Thalassiosira; Surirella; Actinoptychus; Pseudoeunotia; Navicula; Chaetoceros* resting spores; centric girdle bands)
C; lithic fragment; fish debris; forams
R: palynom.; nannos; sponge spic; discoasters; rads

91 cm = bottom of section 1; 241 cmbsf = base of core GC19

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC20 Sect.: 2 (0-150 cmbsf) Lat.: 23 37.84 N Long.: 111 09.0 W
Water Depth: 710 m



Remarks

CLAY (organic-rich): basic stratigraphy is cm-scale interlayering of light and dark bands. There are some slight variations in color, but the basic colors are
dark: ol. black, 5Y2/1 ■
light: light ol. brown 5Y5/6 ▤

4-mm-thick sand layers at 30 cm and 62 cm

smear slides

ss 92 cm (light)
A: clay; palynom.
C: diatoms (*Thalassiosira; Thalassionema; Paralia; Azpeitia*; girdle bands); p
fish debris; forams
R: nanno

ss 138 cm (dark)
A: clay; palynom.
C: spicules distoms (*Paralia; Azpeitia*; fragments & girdle bands); pyrite
R: nannos; fish debris
B: forams; rads

GC20-2

38 cm
Diatoms = R Foram = C Silicoflag = R Sponge spicules = R Rad fragments = R

(; few centric girdle bands)

92 cm
Diatoms = R Foram = C Silicoflag = R Sponge spicules = R Rad fragments = R

(few centric girdle bands)

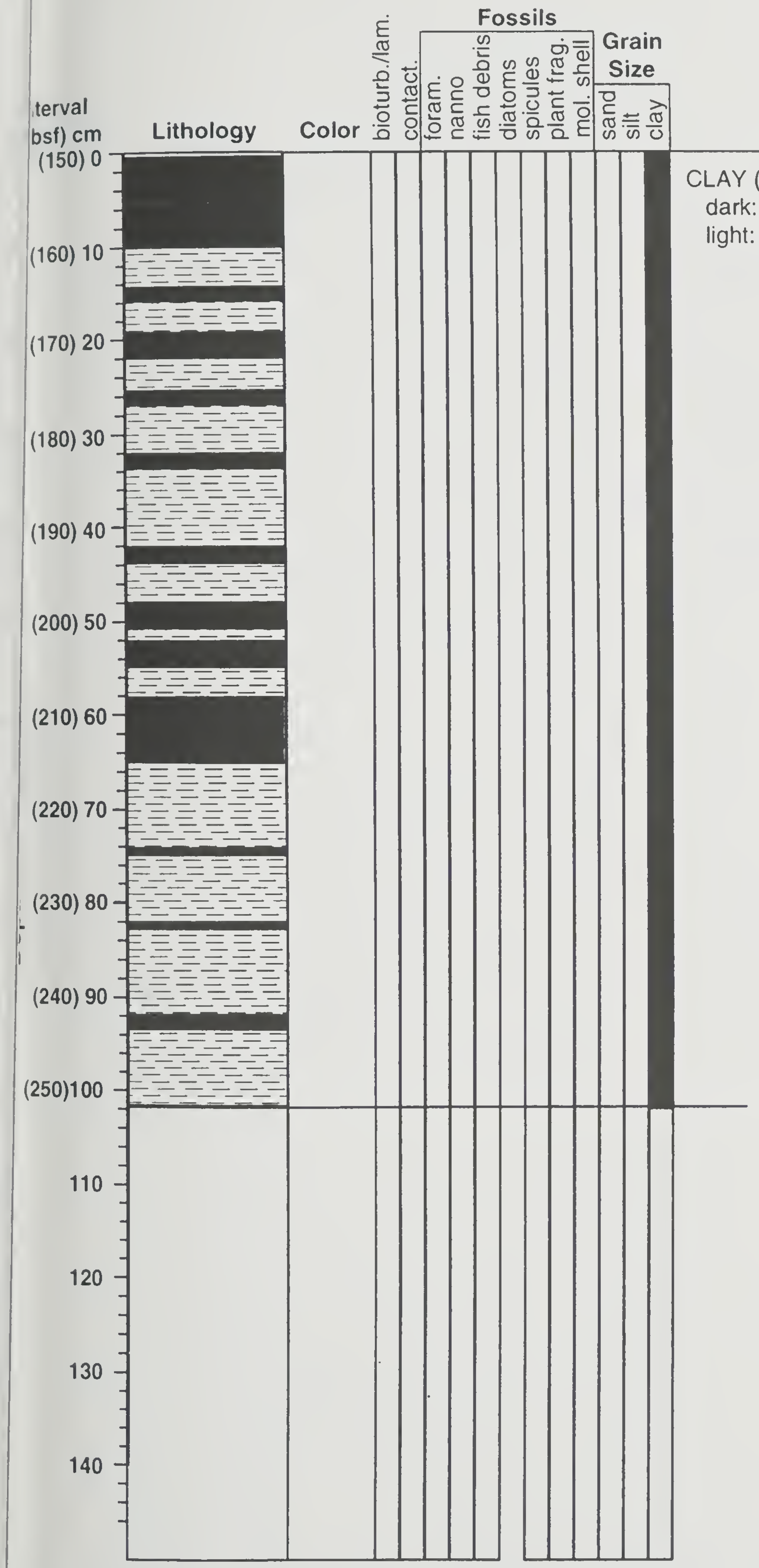
Most abundant foraminifera

GC20-2 0-2 cm:
Bolivina sp., Bolivina seminuda, Buliminella tenuata, Cassidulina delicata

150 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

)XMZ01MV Core: GC20 Sect.: 1 (150-252 cmbsf) Lat.: 23 37.84 N Long.: 111 09.0 W
Water Depth: 710 m



Remarks

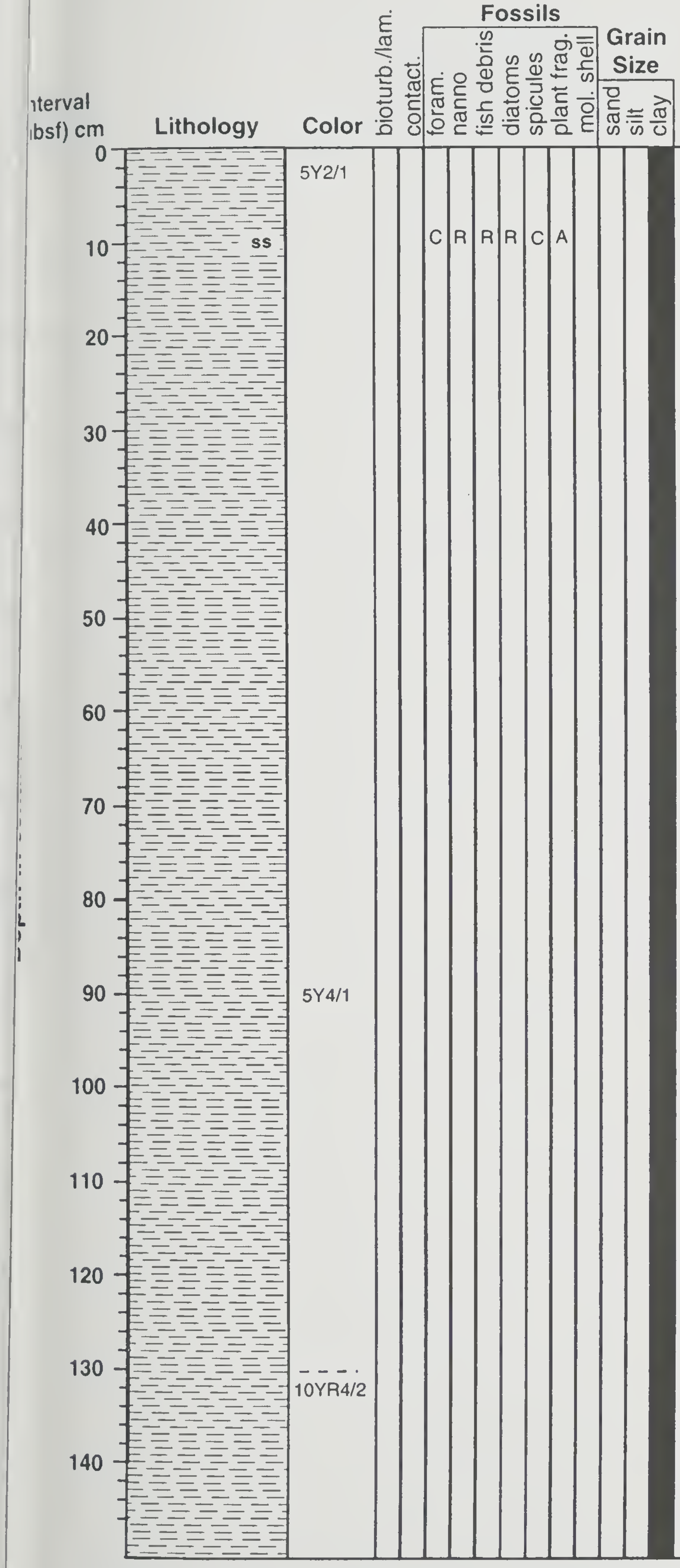
CLAY (organic-rich):
dark: ol. black, 5Y2/1 ■
light: light ol. brown 5Y5/6 ▤

102 cm = bottom of section 1; 252 cmbsf = base of GC20

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: GC21 Sect.: 2 (0-150 cmbsf) Lat.: 23 20.06 N Long.: 111 01.02 W

Water Depth: 976 m



CLAY (organic-rich; foram-bearing):
olive black (5Y2/1), soupy in top 10 cm, gradually getting slightly lighter to ol. gry (5Y4/1) at about 90 cm.
130-150 cm: dark yel. brown (10YR4/2) with burrow mottles of 5Y4/1

smear slides

ss 10 cm (dominant lith)
A: clay; palynom.
C: sponge spic.; forams
R: diatoms (fragments & girdle bands); nannos; fish debriss

Most abundant foraminifera

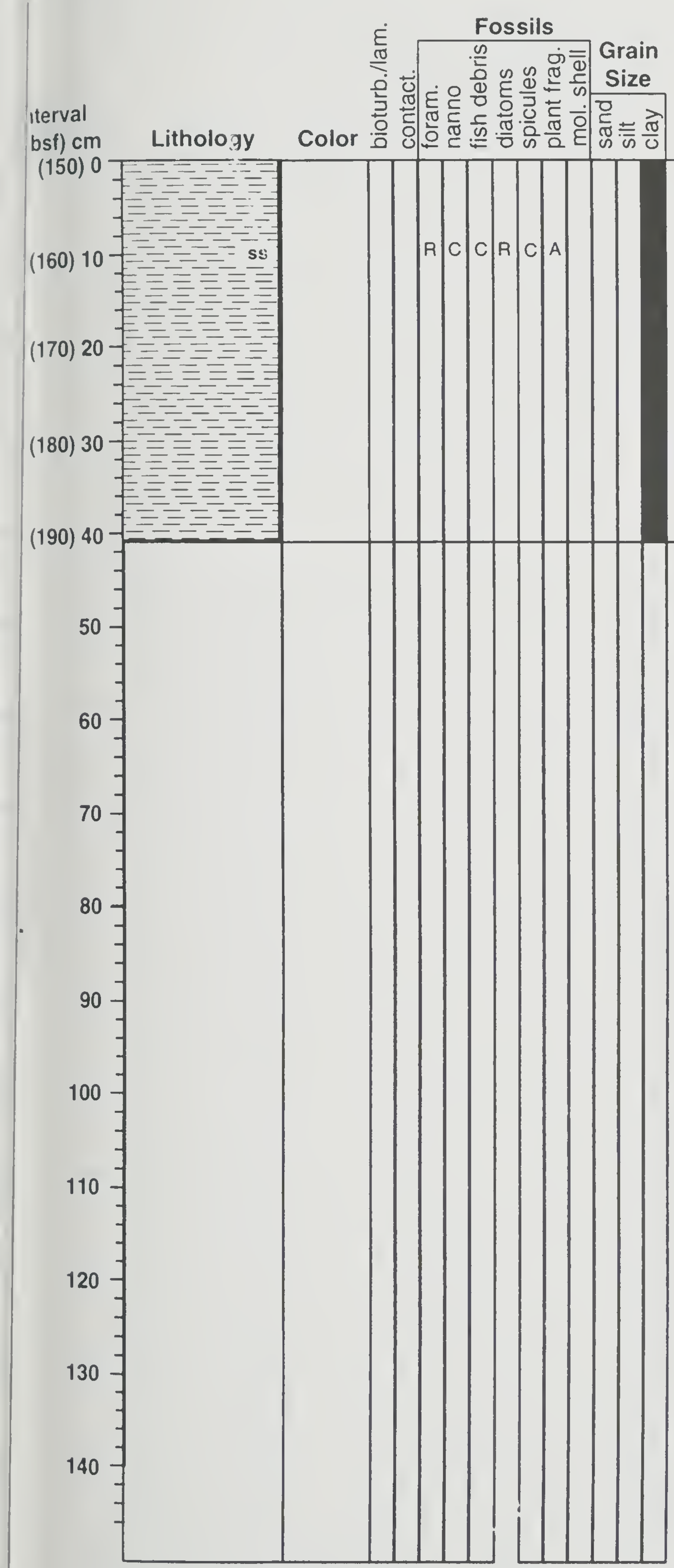
GC21-2 0-2 cm:
Bolivina spissa, Uvigerina sp., Cibicides sp., Globobulimina sp., Cassidulina sp.

150 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: GC21 Sect.: 1 (150-191 cmbsf) Lat.: 23 20.06 N Long.: 111 01.02 W

Water Depth: 976 m



Remarks

CLAY (organic-rich; nanno-bearing):
mod. ol. brown (5Y4/4) with mottles (burrows?) of ol. gray (5Y4/10

smear slides

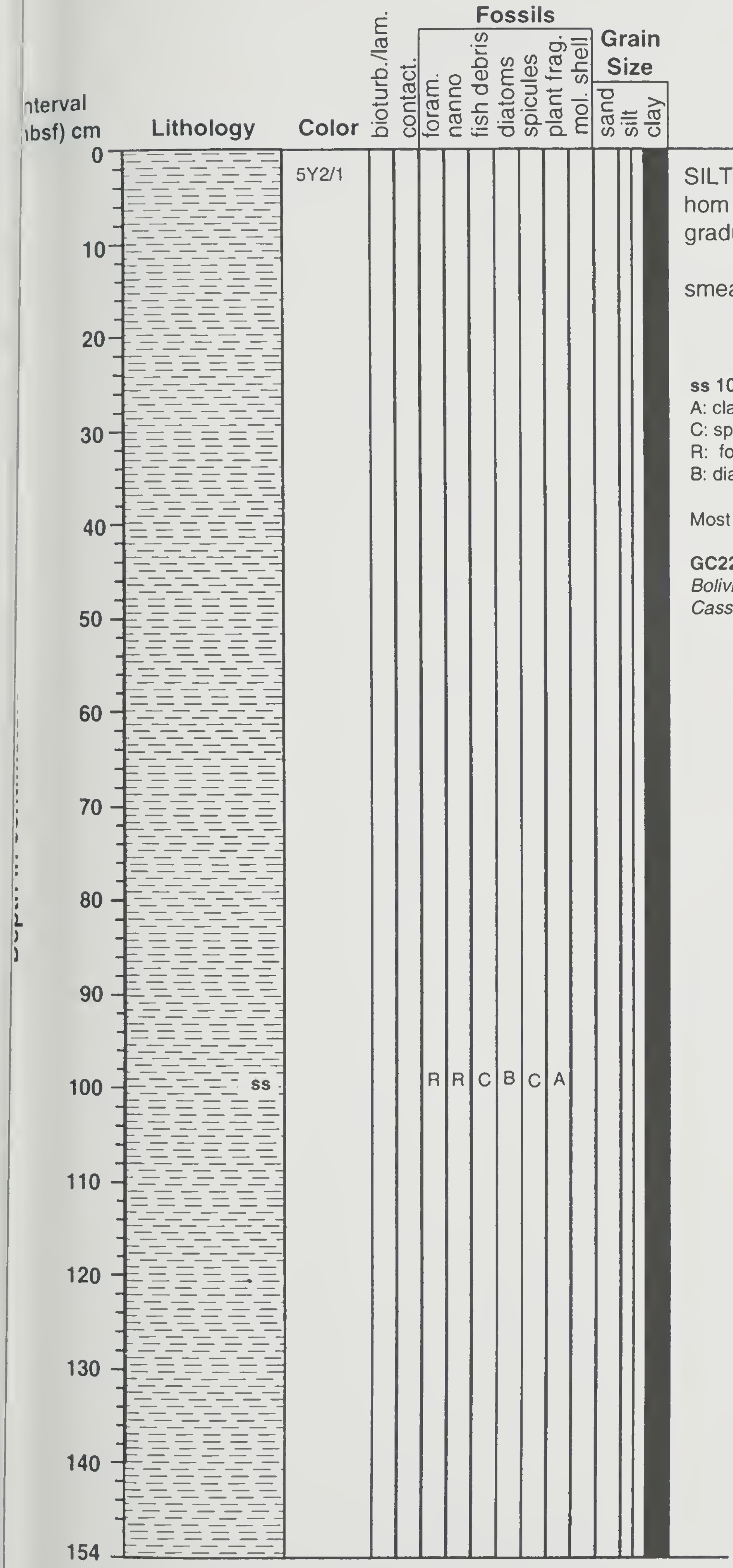
ss 10 cm (dominant lith)
A: clay; palynom.
C: nannos; pyrite; fish debris
R: diatoms (fragments & girdle bands); pyrite; sponge spic.; forams

41 cm = bottom of section 1; 191 cmbsf = base of GC21

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: GC22 Sect.: 2 (0-154 cmbsf) Lat.: 23 15.79 N Long.: 110 47.23 W

Water Depth: 798 m



SILTYCLAY (organic-rich):
hom ogeneous, olive black (5Y2/1), soupy in top 10 cm, gradually getting slightly lighter to ol. gry (5Y4/1)

smear slides

ss 100 cm (dominant lith)
A: clay; organic matter
C: sponge spicules; fish debris
R: forams; nanno; authigenic carbonate rhombs
B: diatoms;

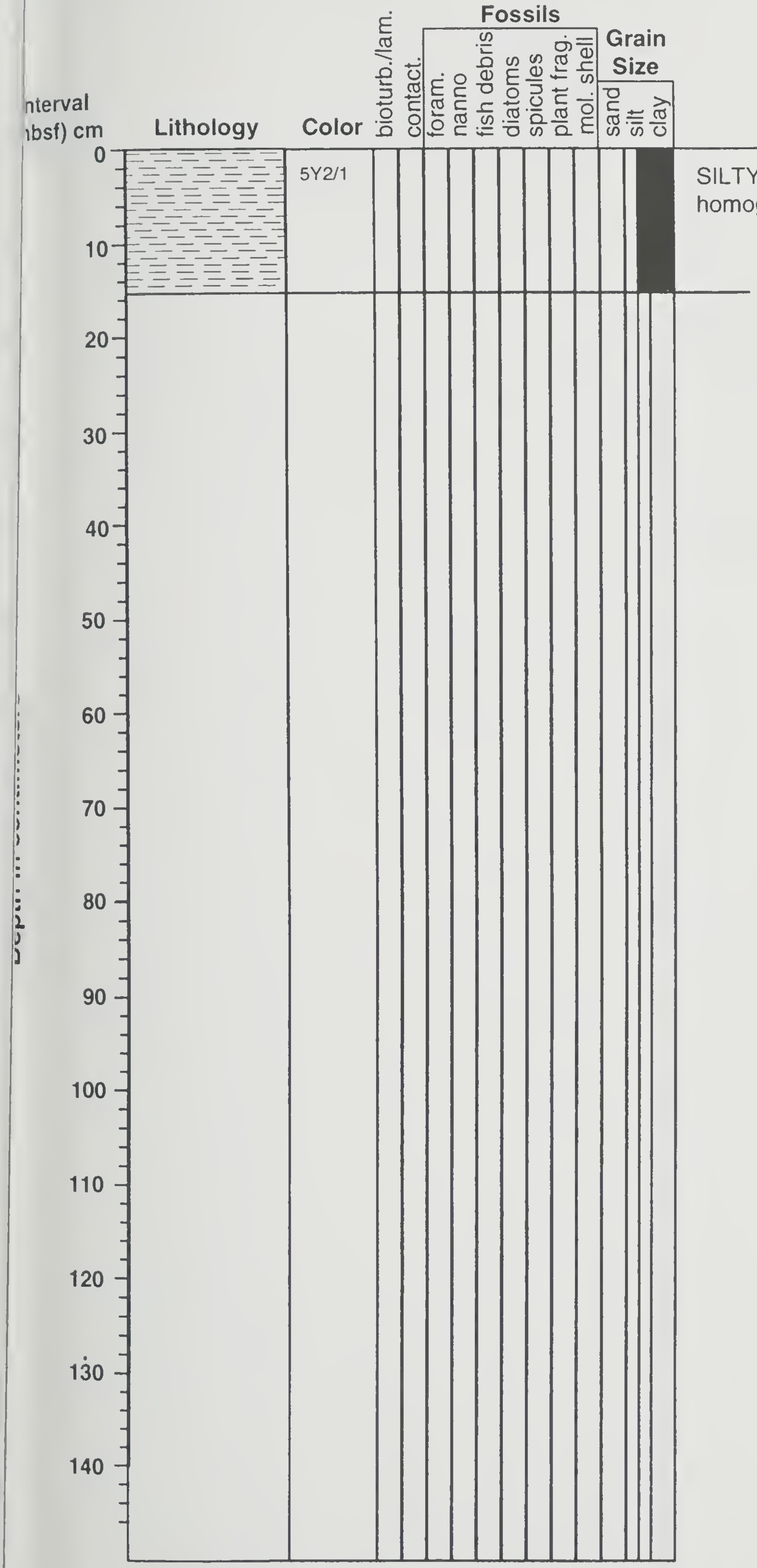
Most abundant foraminifera

GC22-2 0-2 cm :
Bolivina seminuda, Buliminella tenuata, Bolivina sp., Cassidulina delicata

154 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: GC22 Sect.: 1 (0-154 cmbsf) Lat.: 23 15.79 N Long.: 110 47.23 W
Water Depth: 798 m

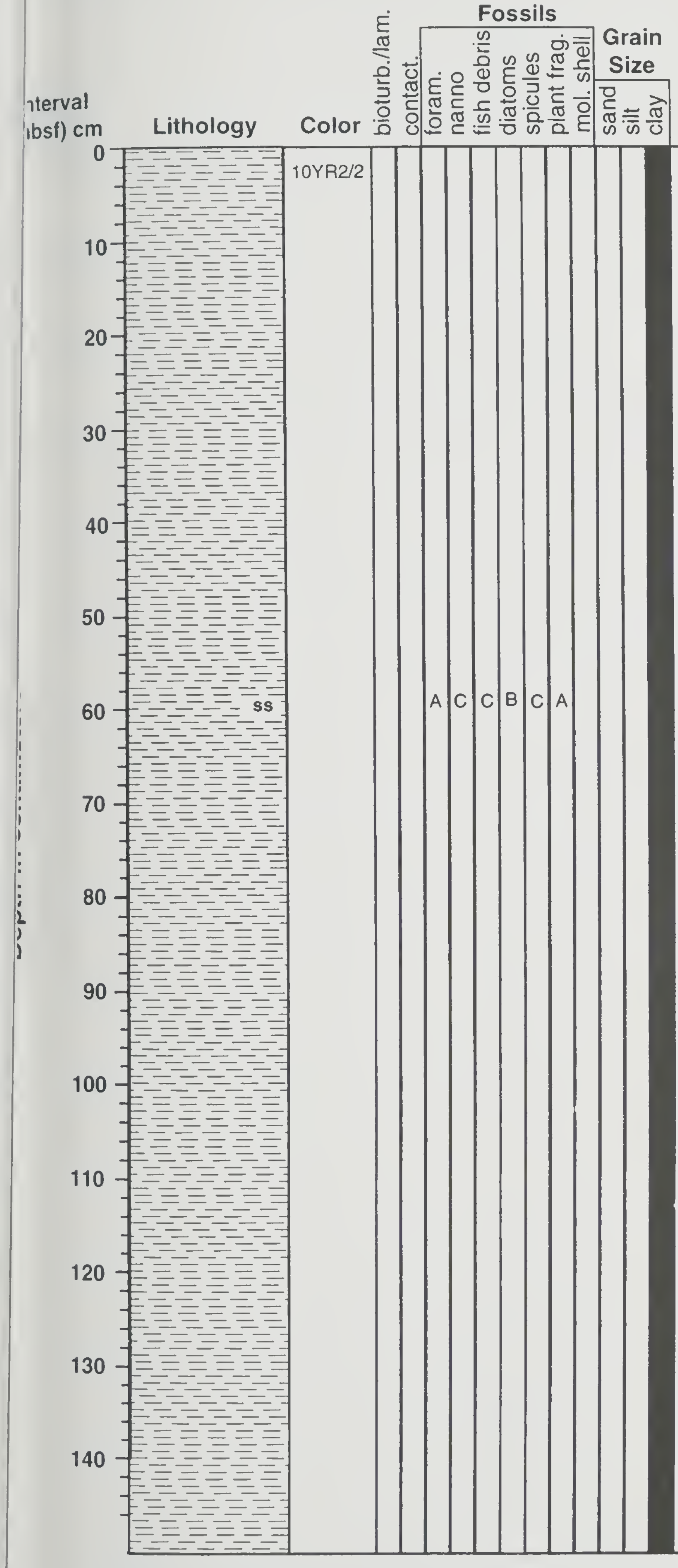


SILTY CLAY (organic-rich): homogeneous, olive black (5Y2/1)

15 cm = bottom of section 1; 169 cmbsf = base of Core GC22

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: GC23 Sect.: 2 (0-150 cmbsf) Lat.: 23 15.41 N Long.: 110 32.08 W
Water Depth: 790 m



Remarks

CLAY (foram-bearing):
homogeneous, dusky yel. brown (10YR2/2)

smear slides

ss 60 cm (dominant lith)
A: clay; forams; organic matter
C: nannos; lithic frags.; glass shards; sponge spicules; fish debris
R: rads; authigenic carbonate rhombs
B: diatoms

Most abundant foraminifera

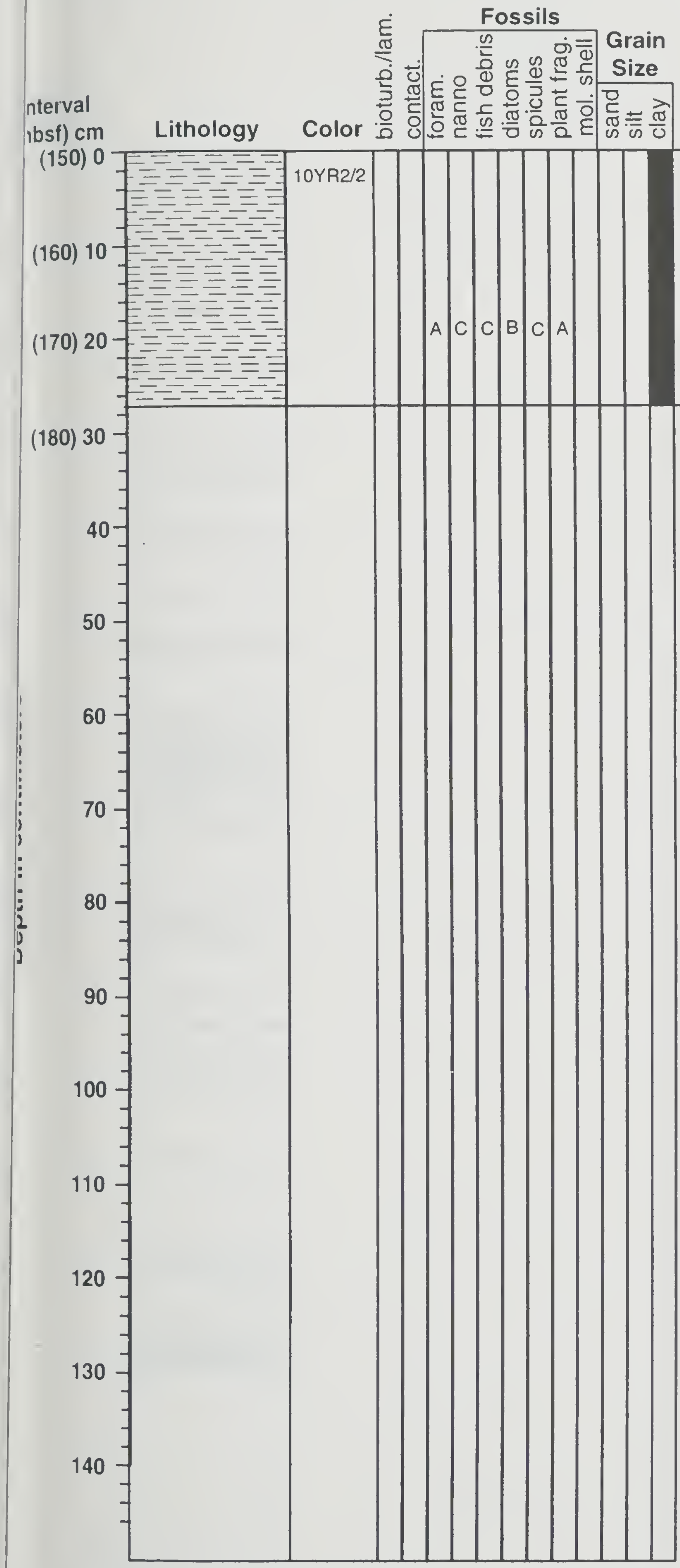
GC23-2 0-2 cm:
Uvigerina sp., Bolivina sp., Bolivina spissa, Angulogerina sp., Cassidulina sp., Cibicides sp.

150 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC23 Sect.: 1 (150-177 cmbsf) Lat.: 23 15.41 N Long.: 110 32.08 W

Water Depth: 790 m



Remarks

CLAY (foram-bearing):
homogeneous, dusky yel. brown (10YR2/2)

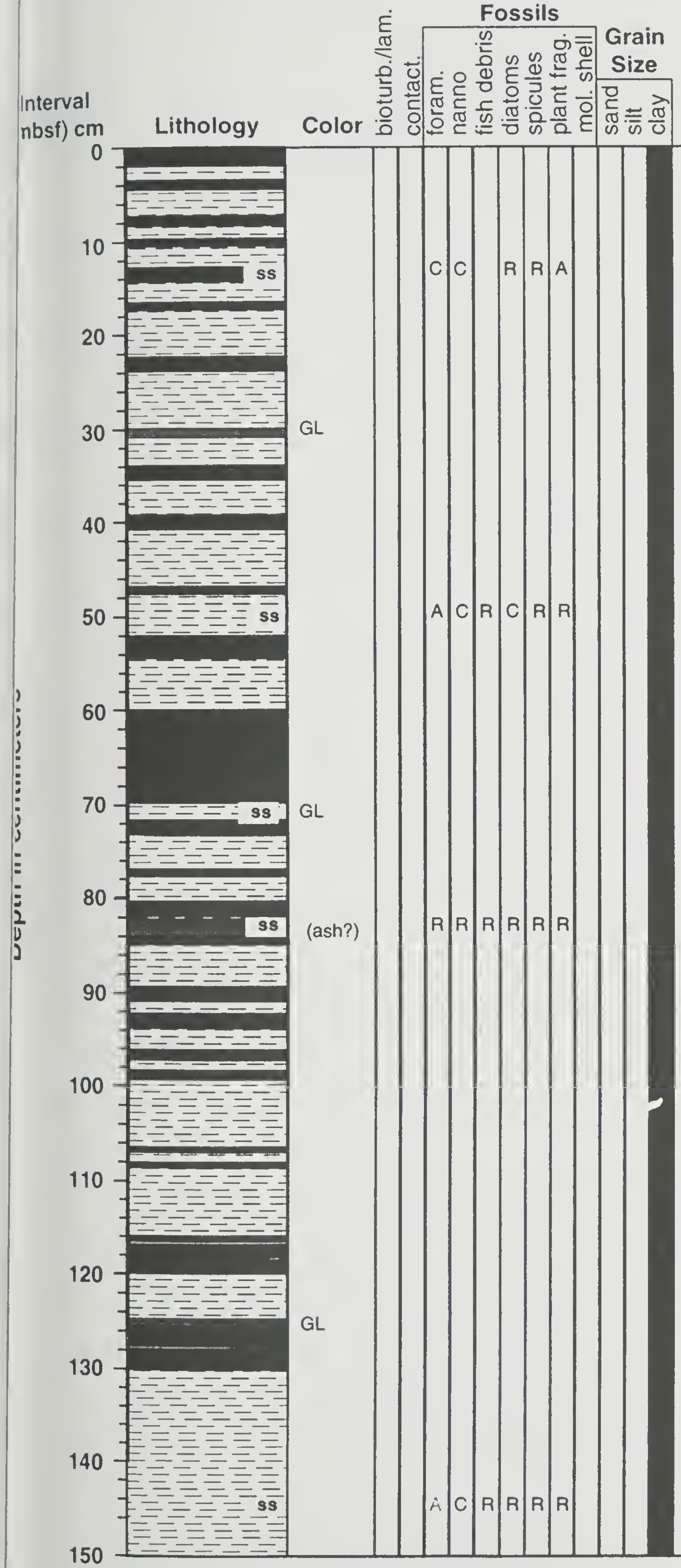
smear slides

ss 20 cm (dominant lith)
A: clay; forams; organic matter
C: nannos; lithic frags.; glass shards; sponge spicules; fish debris
R: rads; authigenic carbonate rhombs
B: diatoms

27 cm = bottom of section 1; 177 cmbsf = base of core GC23

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC24 Sect.: 2 (0-150 cmbsf) Lat.: 23 20.42 N Long.: 110 24.38 W
Water Depth: 541 m



Remarks

CLAY (organic-rich, foram-bearing):

0-140cm: more or less well banded; basic stratigraphy is cm-scale interlayering of light and dark bands. There are some slight variations in color, but the basic colors are
dark: ol. black, 5Y2/1 ■
light: dusky yel. brown, 10YR2/2 ▤

140-150cm: more or less homogeneous 10YR2/2

3 light gray clay layes (GL) with sharp upper and lower contacts (volcanic ash?) @30, 84, and 125 cm; ss observations suggest that GL @ 84 cm may be an altered volcanic ash

smear slides

ss 13 cm (dark)
A: clay; organic matter.
C: nannos; forams; pyrite; glass frags.
R: diatoms; sponge spic; rads

ss 50 cm (light)
A: clay; forams;
C; lithic fragments; nannos; diatoms
R: silicoflag; sponge spic; rads

ss 71 cm (gray layer)
(same as ss 50 cm)

ss 84 cm (gray layer)
A: clay; lithic fragments; glass
R: nannos; forams; discoasters; diatoms; palynom.; rads; sponge spic.

ss 145 cm (light)
A: clay; forams
C; lithic fragments; nannos; pyrite
R: silicoflag; diatoms; sponge spic; rads

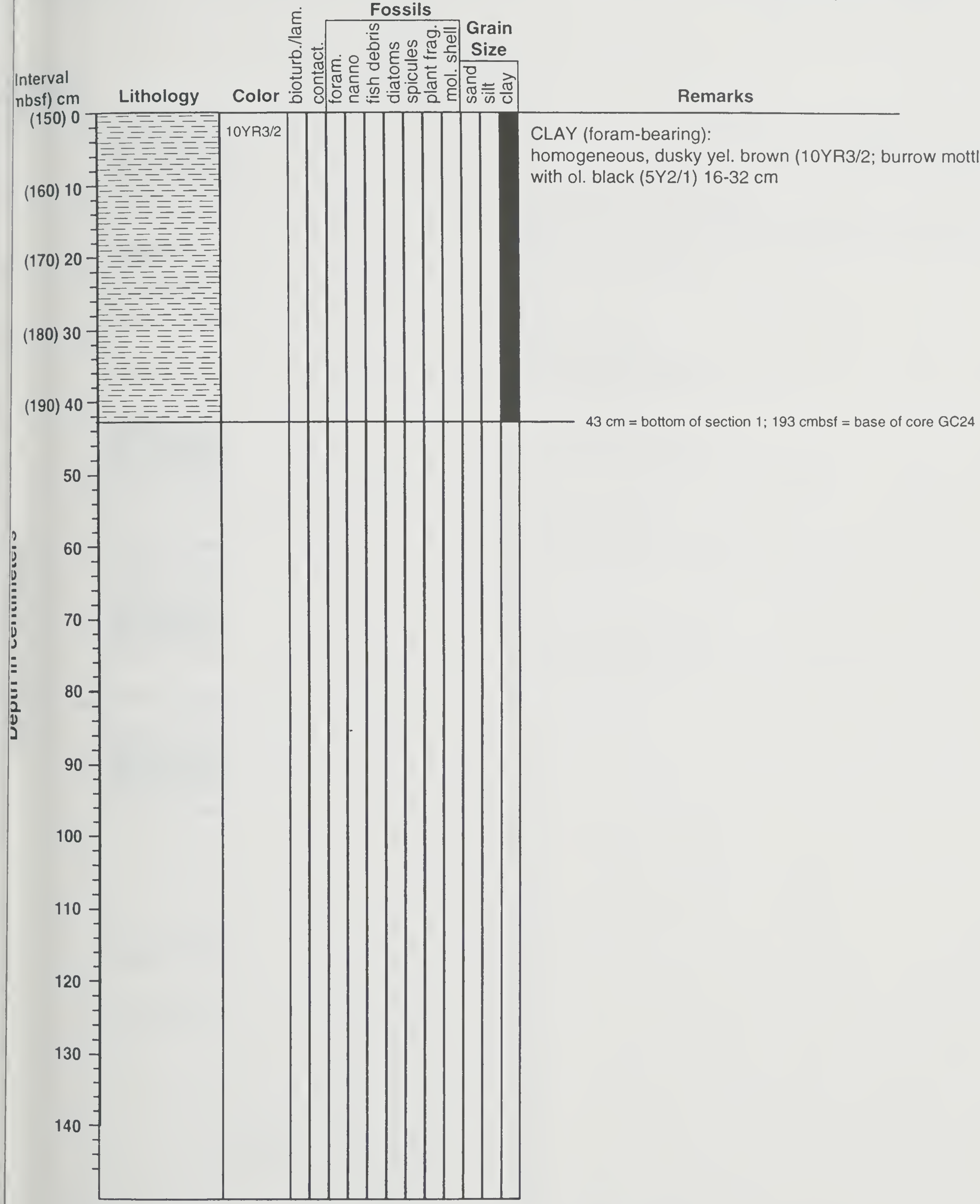
Most abunbdant foraminifera:

GC24-2 0-2 cm:
Bolivina sp., Buliminella tenuata, Bolivina seminuda, Cassidulina delicata

150 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC24 Sect.: 1 (150-193 cmbsf) Lat.: 23 20.42 N Long.: 110 24.38 W
Water Depth: 541 m



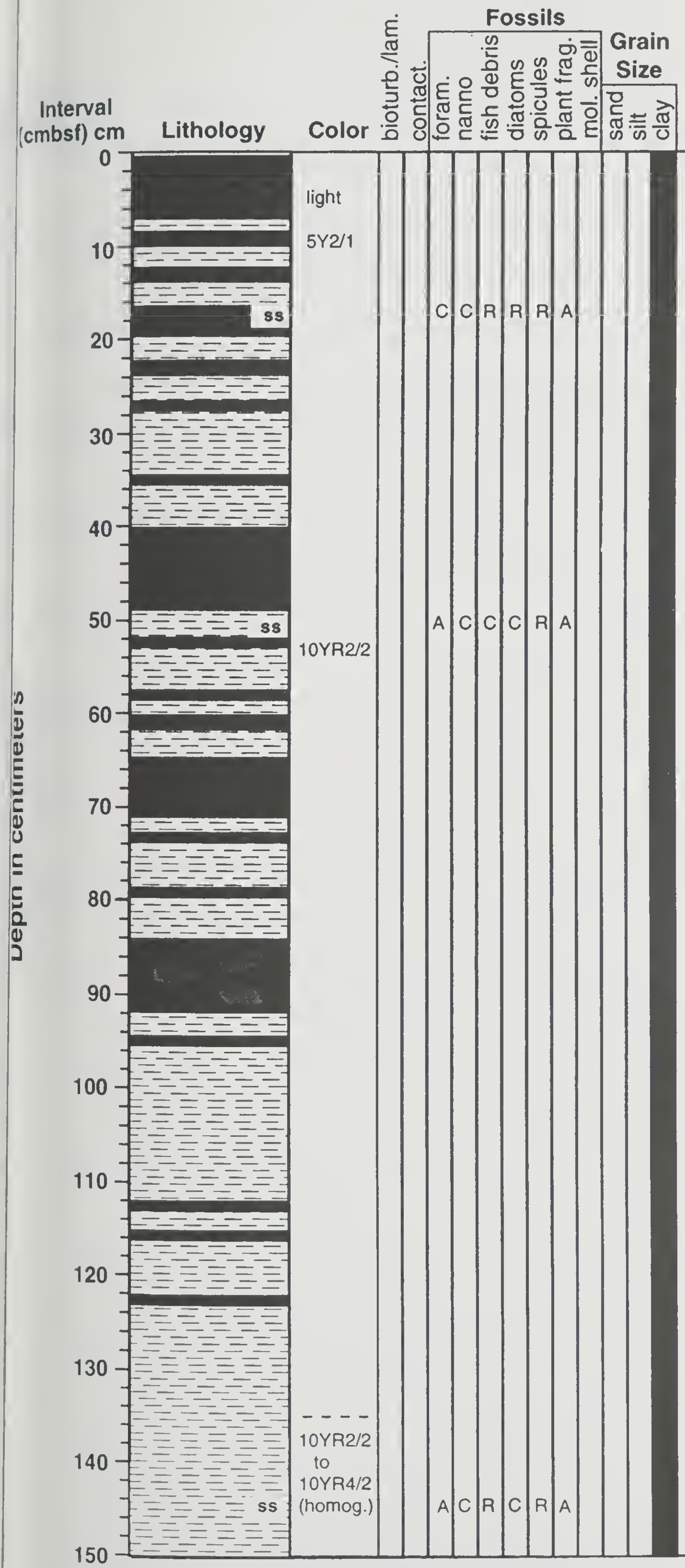
CLAY (foram-bearing):
homogeneous, dusky yel. brown (10YR3/2; burrow mottled with ol. black (5Y2/1) 16-32 cm

43 cm = bottom of section 1; 193 cmbsf = base of core GC24

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC25 Sect.: 2 (0-150 cmbsf) Lat.: 23 30.58 N Long.: 111 18.91 W

Water Depth: 555 m



Remarks

CLAY (organic-rich; nanno-, foram-bearing): basic stratigraph is cm-scale interlayering of light and dark bands. there are some slight variations in color, but the basic colors are:

■ dark: ol black (5Y2/2)

□ light: grades from brownish blk (5YR2/1) at top, to dusky yel. brown (10YR2/2) at about 50 cm, to dark. yel browr (10YR4/2) at bottom

smear slides

ss 18 cm (dark)
A: clay; organic matter
C: nannos; pyrite; forams
R: sponge spic.; fish debris; rads; diatoms

ss 51 cm (light)
A: clay; forams; organic matter
C:; fish debris;nannos.
R: diatoms; pyrite; glass shards; sponge spic

ss 145 cm (light)
A: clay; organic matter; forams;nannos
C: nannos; pyrite
R: fish debris; silicoflag.; diatoms; rads; sponge spic

Most abundant foraminifera

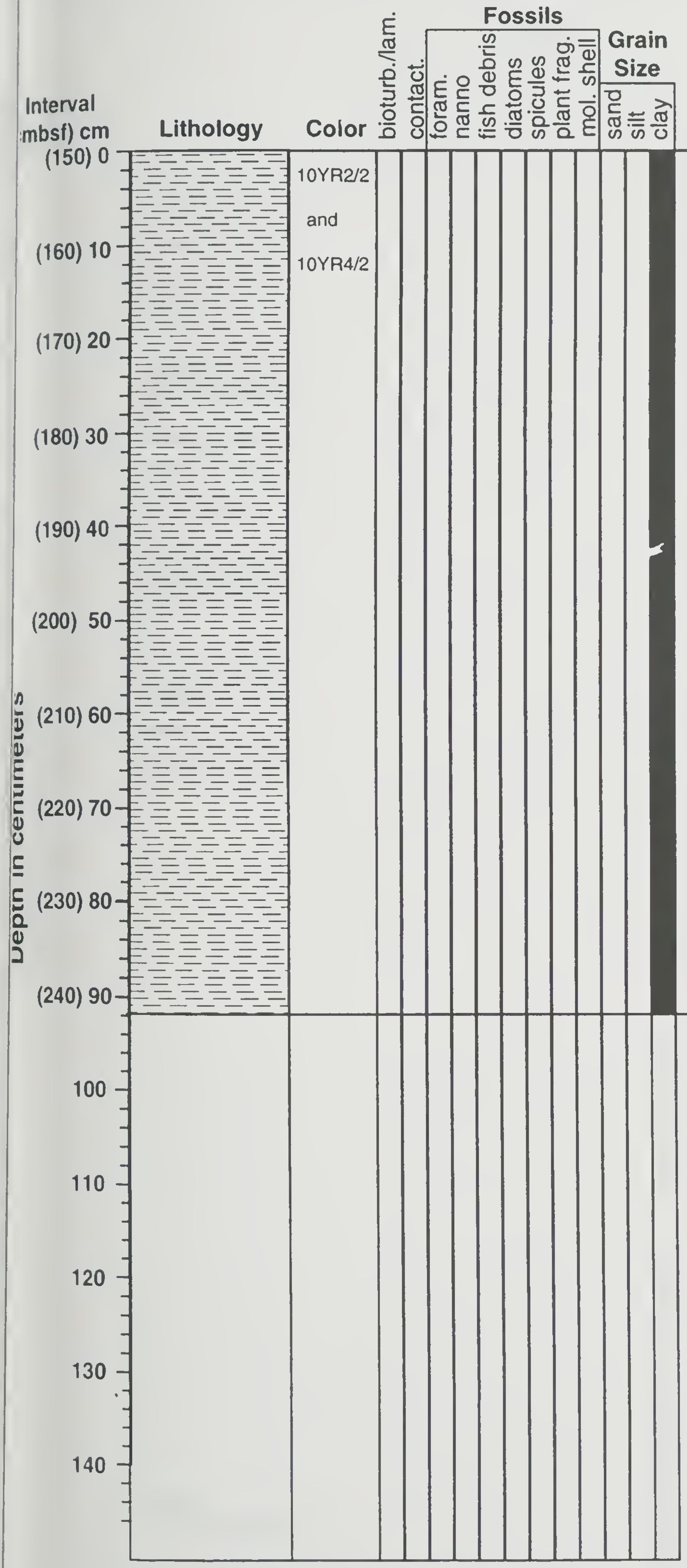
GC25-2 0-2 cm:
Bolivina sp., Buliminella tenuata, Cassidulina delicata

150 cm = bottom of sect. 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC25 Sect.: 1 (150-242 cmbsf) Lat.: 23 30.58 N Long.: 111 18.91 W

Water Depth: 555 m



Remarks

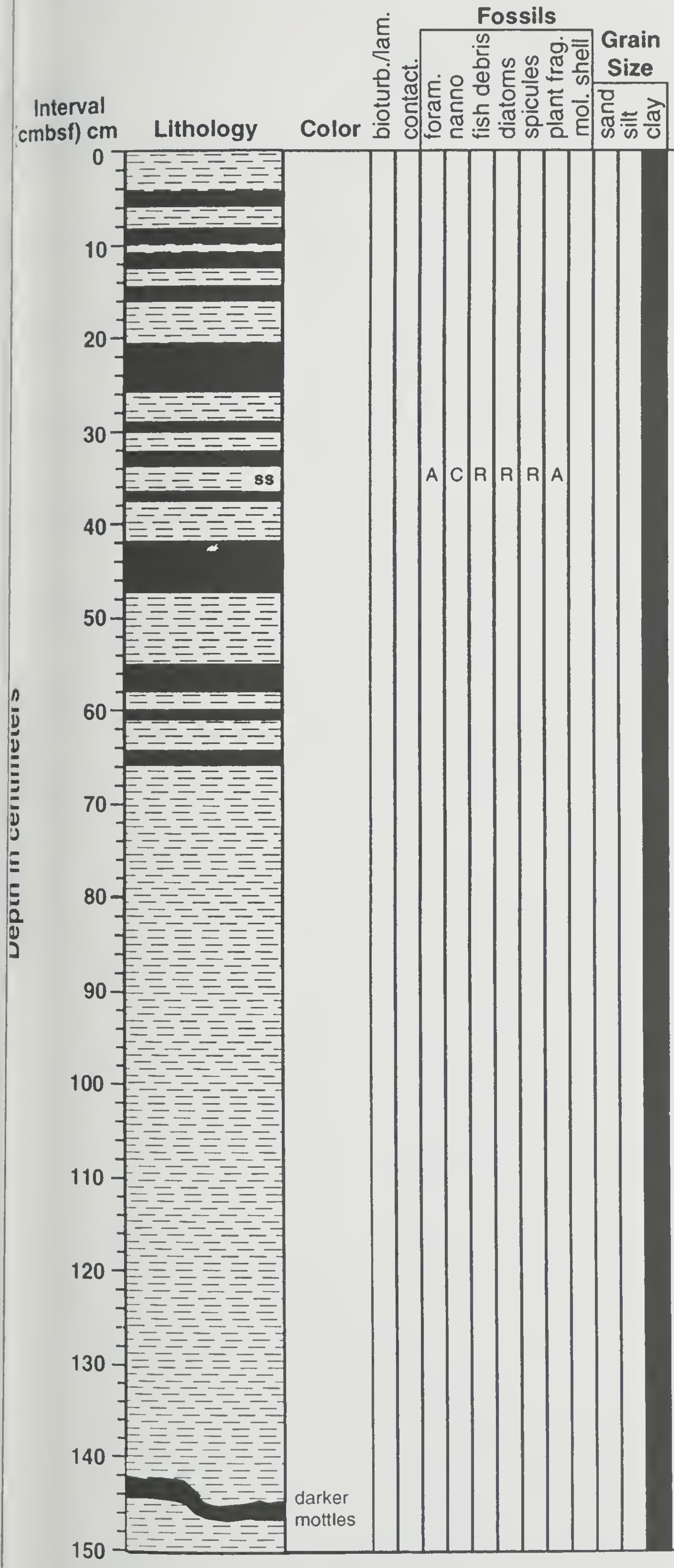
CLAY (foram-bearing):
burrow mottled with dusky yel brown (10YR2/2) and dark yel. brown (10YR4/2)

92 cm = bottom of section 1; 242 cmbsf = base of core GC25

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC26 Sect.: 2 (0-150 cmbsf) Lat.: 22 23.01 N Long.: 111 27.11 W

Water Depth: 532 m



Remarks

CLAY (organic-rich; foram-, nanno-bearing):

0-66 cm: basic stratigraphy is cm-scale interlayering of light and dark bands. there are some slight variations in colo but the basic colors are:

■ dark: organic-rich clay; ol black (5Y2/2) to dusky yel. brown (10YR2/2)

☐ light: organic-rich, foram-bearing clay; 10YR2/2 to 10YR3/2

66-150 cm: burrow mottled 10Y4/2 and 10YR2/2

smear slides

ss 35.5 cm (light)

A: clay; organic matter; forams

C: nannos; pyrite

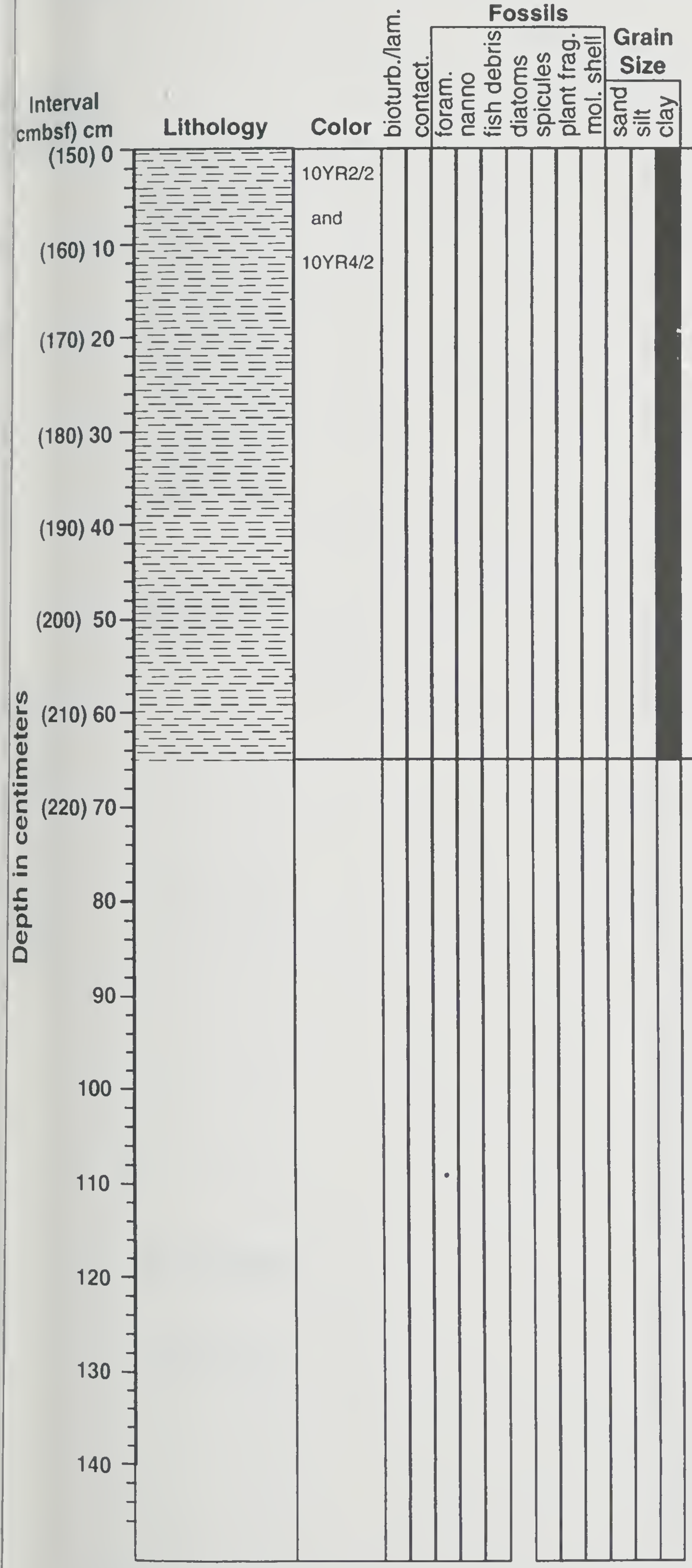
R: rads; diatoms

150 cm = bottom of sect. 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC26 Sect.: 1 (150-215 cmbsf) Lat.: 22 23.01 N Long.: 111 27.11 W
Water Depth: 532 m



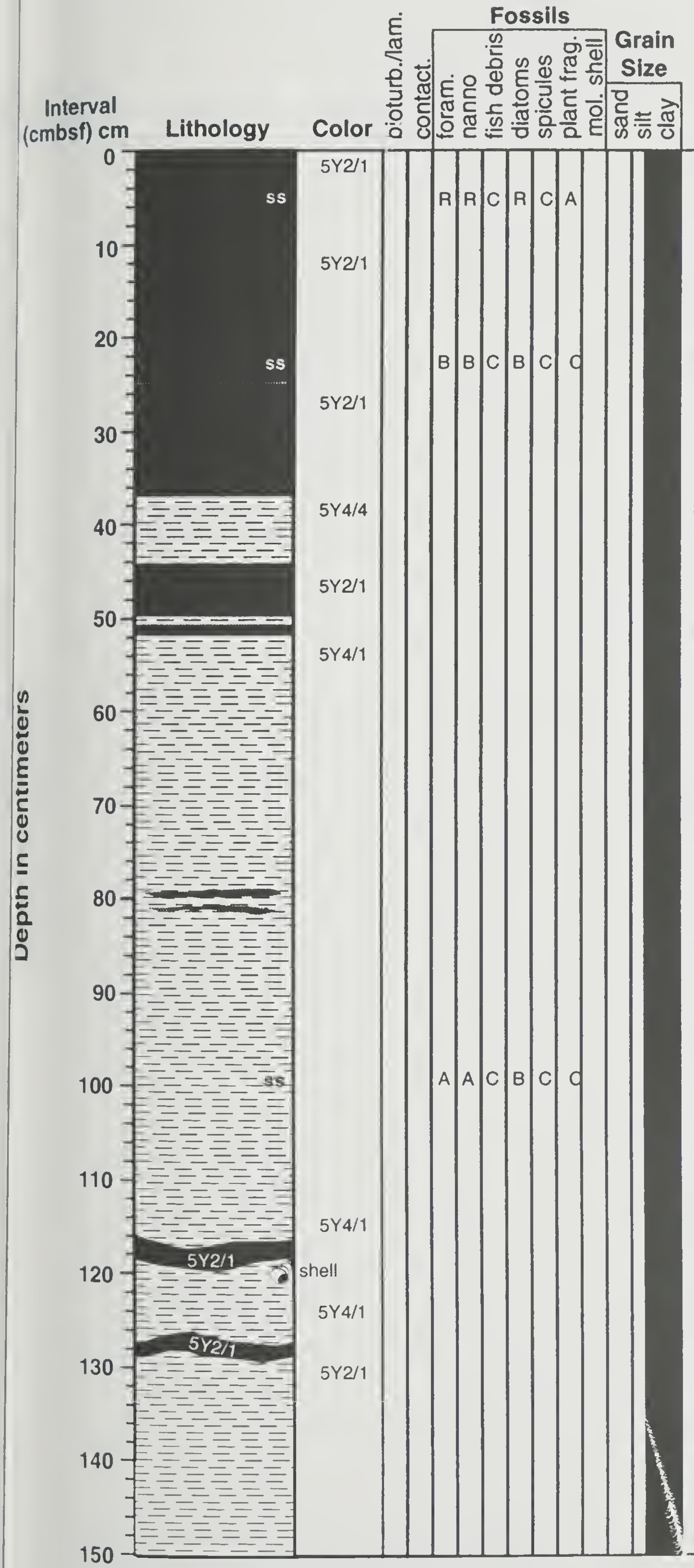
Remarks

CLAY to SILTY CLAY (foram-bearing):
dark (ol.black, 5Y2/1 to 10YR2 /2) mottled with dusky yel. brown (10YR2/2)burrow mottled wth dusky yel brown (10YR2/2) and dark yel. brown (10YR4/2)

65 cm = bottom of section 1; 215 cmbsf = base of core GC26

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC27 Sect.: 2 (0-150 cmbsf) Lat.: 23 21.50 N Long.: 110 21.0 W
Water Depth: 536 m



Remarks

CLAYEY SILT (organic-rich; foram-, nanno-bearing):

Banding of lighter-darker layers on scales of several cm to 10s of cm. there are some slight variations in color, but the basic colors are:

■ dark: ol black (5Y2/1) tool. gray (5Y4/1)
□ light: mod. yel. brown (5Y4/4)
▨ gray clay layers (greenish gray, 5G6/1)

52-116 cm: appears to be bioturbated but no obvious large burrows; relic? gray clay layers at 80 cm

smear slides

ss 5 cm (dark)
A: clay; organic matter
C: pyrite; lithic grains; sponge spic.; glass
R: rads; diatoms; nannos; forams

ss 22 cm (gray layer)
A: clay; lithic frags
C: pyrite; lithic grains; sponge spic.; organic matter
B: diatoms; nannos; forams

ss 100 cm (light layer)
A: clay; nannos; forams
C: pyrite; lithic grains; sponge spic.; organic matter
B: diatoms; rads

Most abundant foraminifera

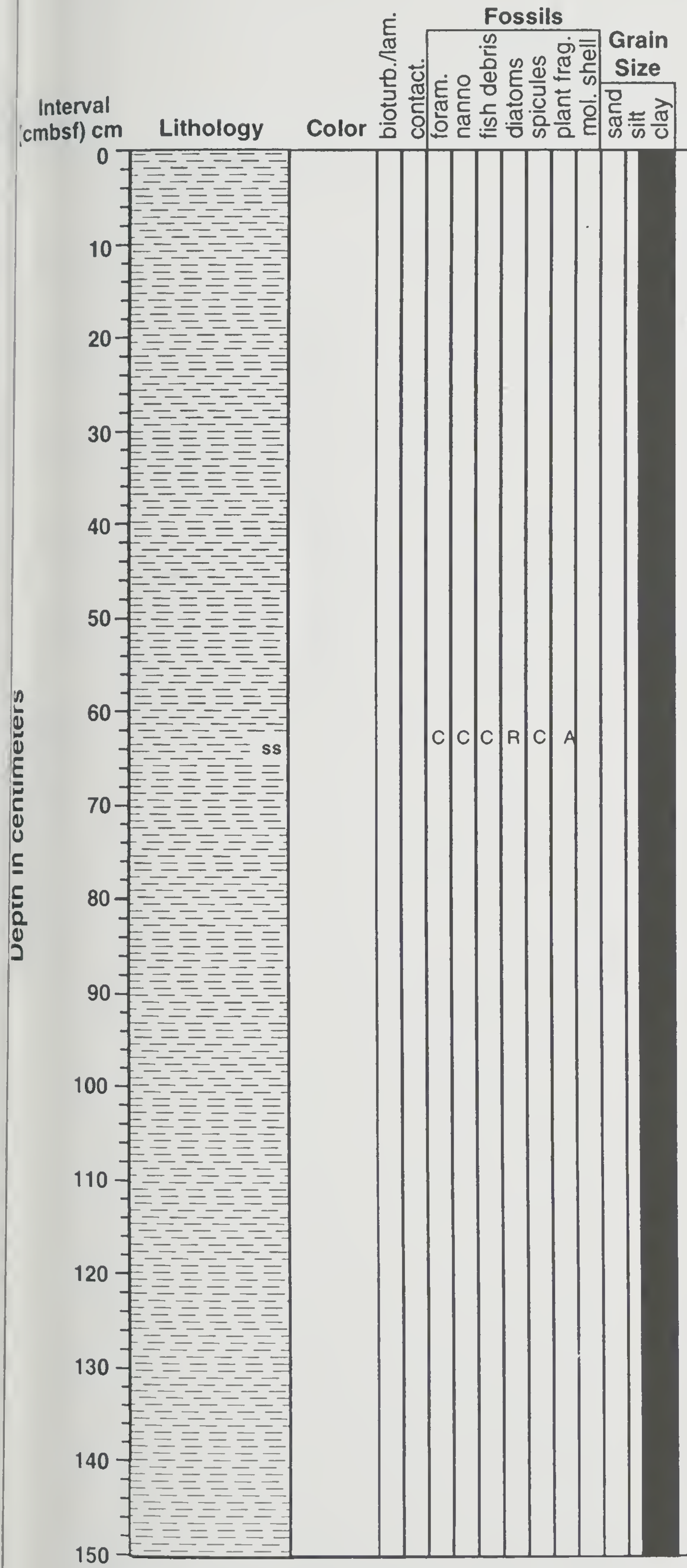
GC27-2 0-2 cm
Bolivina sp., Cibicides sp., Angulogerina sp., Bolivina argentea

Note: there is a 12-cm-long section 1 that was not opened.

150 cm = bottom of sect. 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC28 Sect.: 2 (0-150 cmbsf) Lat.: 23 19.8 N Long.: 110 22.29 W
Water Depth: 610 m



Remarks

CLAYEY SILT (organic-rich):
faint banding throughout of ol. black (5Y2/1) and ol. gray (5Y4/1); does not appear to be bioturbated

smear slides

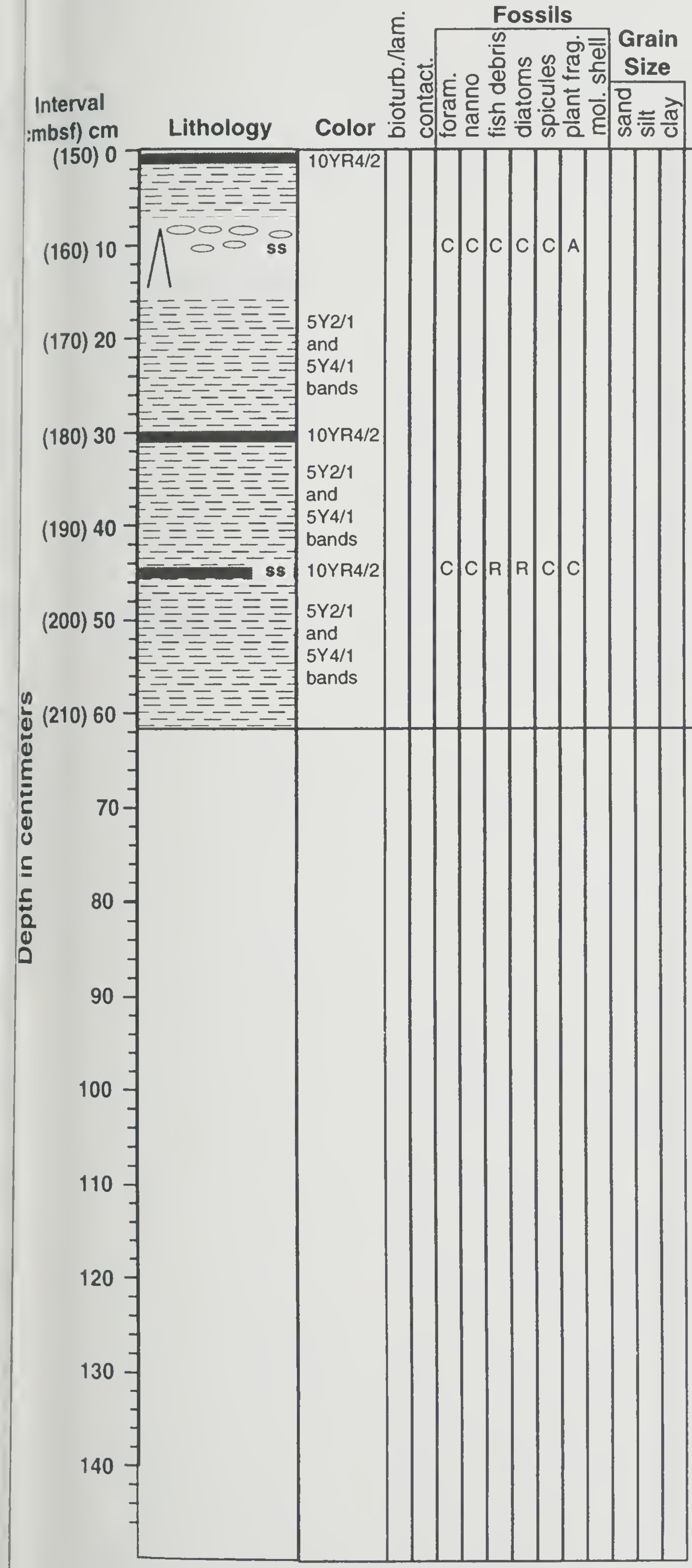
ss 64 cm
A: clay; lithic fragments; organic matter
C: pyrite; lithic grains; sponge spic.; nannos; forams
R: rads; diatoms (*Azpeitia; Nitzschia; Thalassionema; Nitzschioides; Paralia; Chaetoceros* resting spores; girdle bands); rads

150 cm = bottom of sect. 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC28 Sect.: 1 (150-212 cmbsf) Lat.: 23 19.8 N Long.: 110 22.29 W

Water Depth: 610 m



Remarks

CLAYEY SILT (organic-rich):
predomoinantly faintly banded 5Y2/1 and 5Y4/1 on a cm-scal
w/ several dark yel. brown (10YR4/2) layers;
7-15 cm: turbidite with a sharp grayish black (5Y4/1) base, grading upward to bioturbated greenish gray (5Y6/1) at top

smear slides

ss 10 cm (turbidite)
A: clay; lithic fragments
C: forams; nannos; diatoms (*Thalassionemas*); lithic fragments.; sponge spic.
R: fish debris; silicoflag.; rads

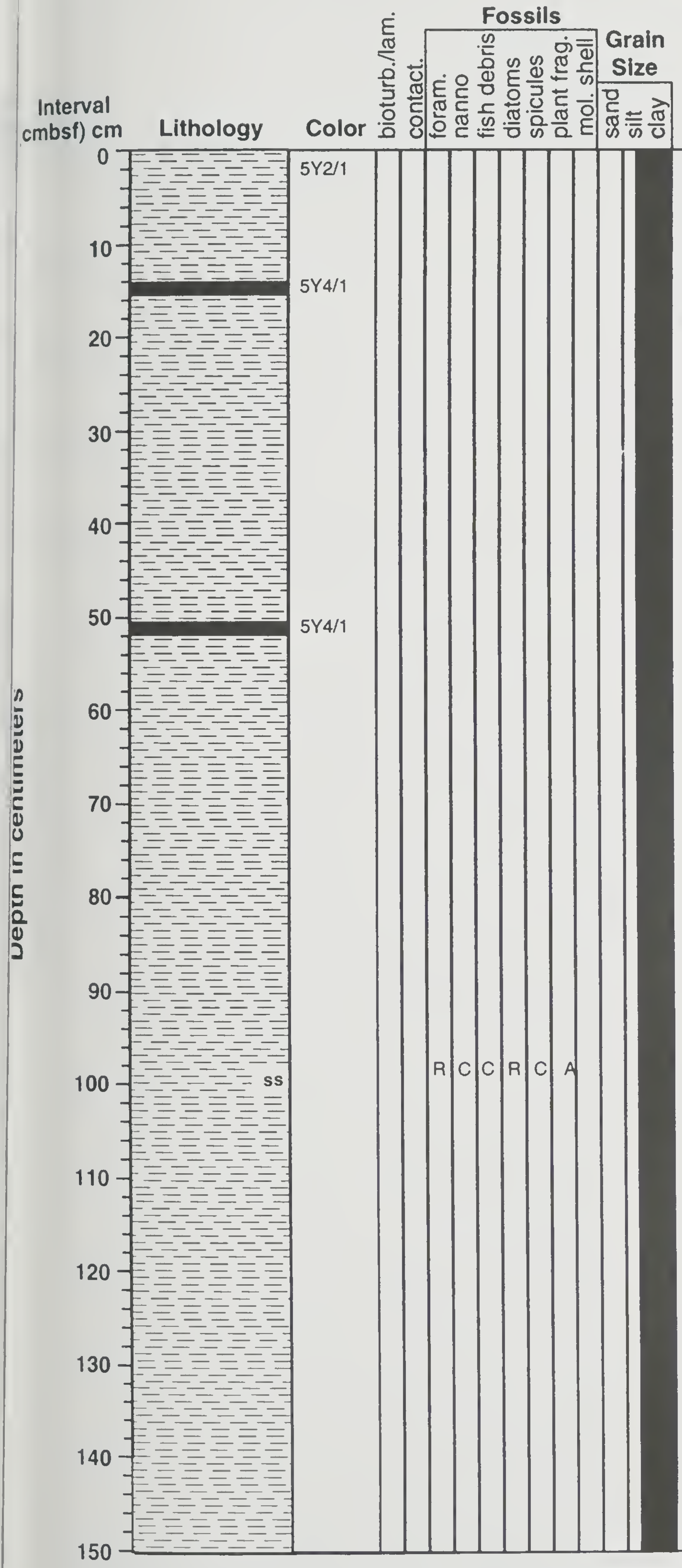
ss 45 cm (yel. brown layer)
A: clay
C: forams; lithic fragments; nannos; sponge spic.; organic matter
R: diatoms; fish debris; rads

62 cm = bottom of section 1; 212 cmbsf = base of core GC28

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC29 Sect.: 2 (0-150 cmbsf) Lat.: 23 11.50 N Long.: 110 19.20 W

Water Depth: 930 m



Remarks

SILTY CLAY (organic-rich):
ol. black (5Y2/1); hints of banding (does not appear to be bioturbated)

smear slides

ss 100 cm
A: clay; organic matter
C: pyrite; nannos;sponge spic.; lithic fragments; fish debris
B: diatoms; rads; forams

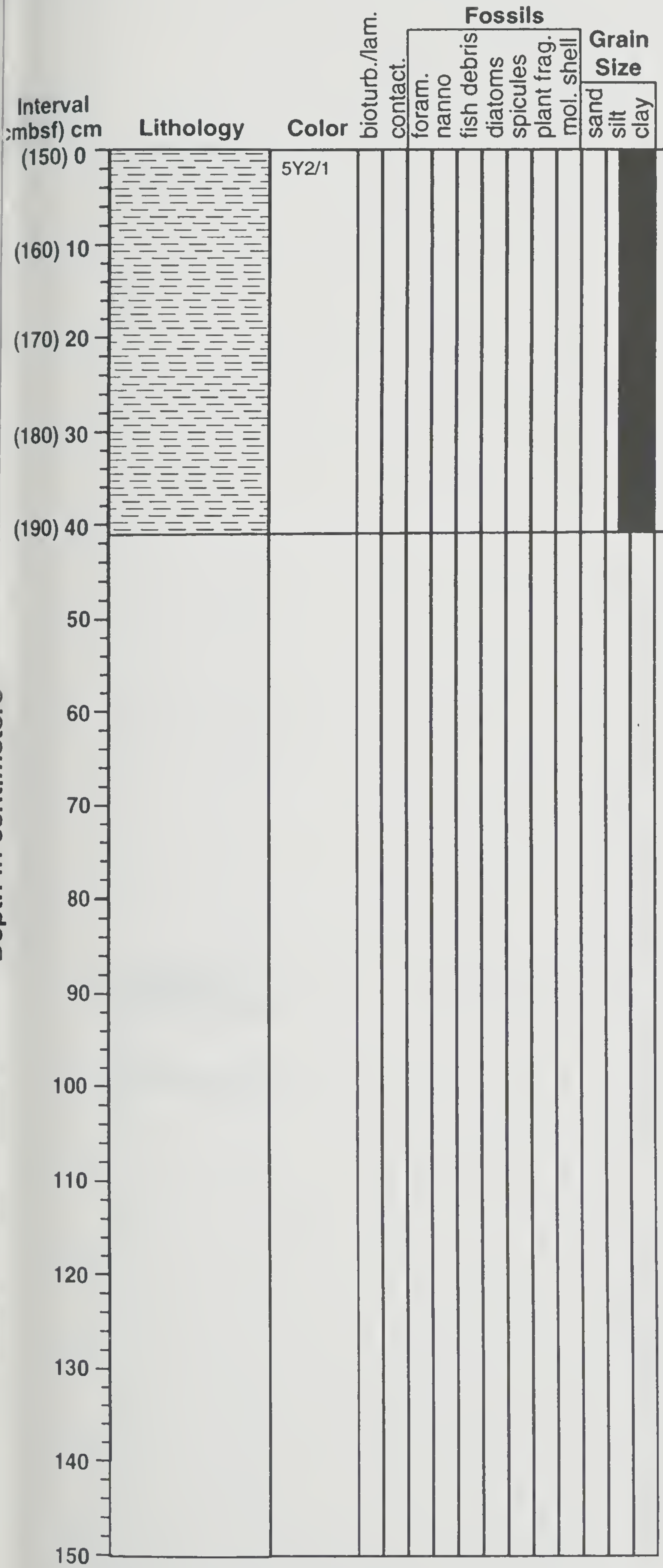
Most abundant foraminifera (forams not abundant)

GC29-2 0-2 cm
Bolivina sp., Bolivina seminuda, Bolivina spissa, Uvigerina sp., Cibicides sp., Cassidulina sp., Buliminella tenuata

150 cm = bottom of sect. 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC29 Sect.: 1 (150-191 cmbsf) Lat.: 23 11.50 N Long.: 110 19.20 W
Water Depth: 930 m



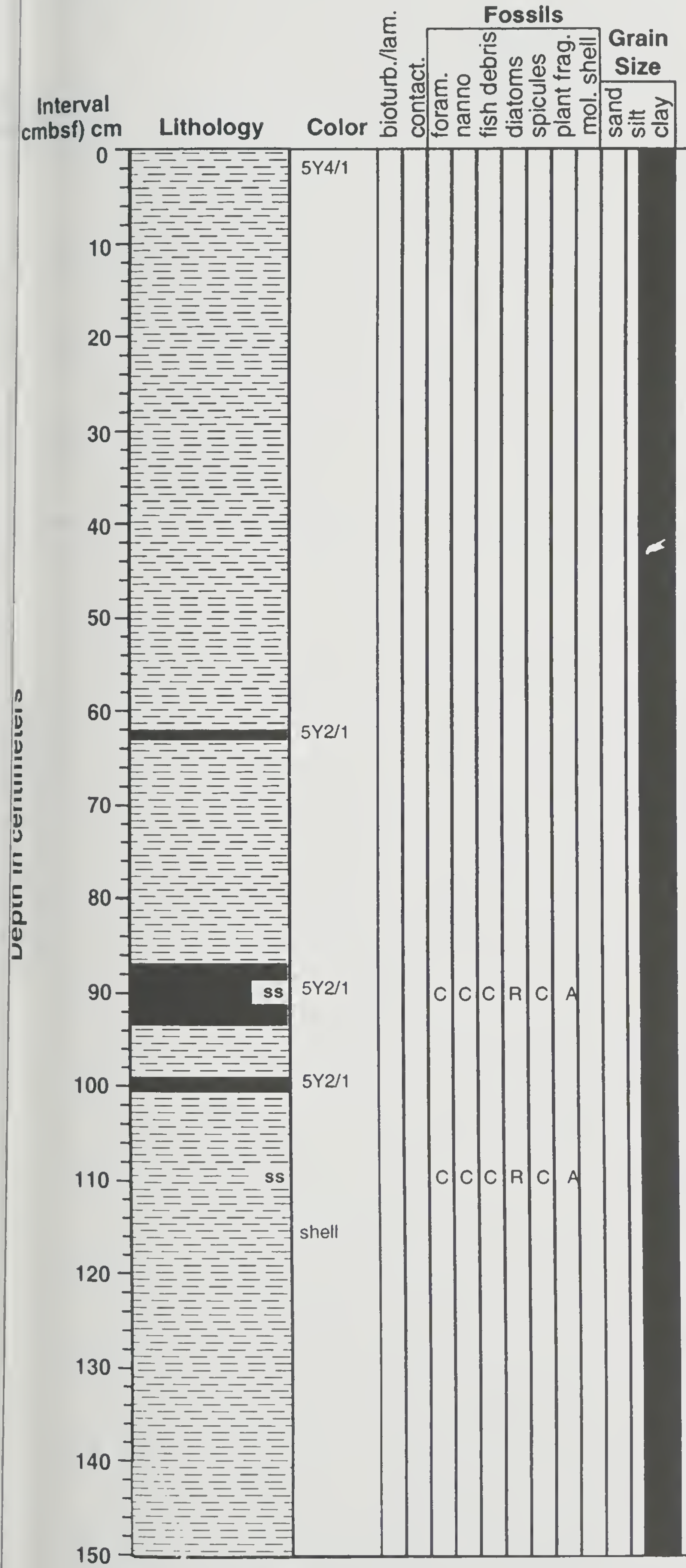
Remarks

SILTY CLAY (organic-rich):
ol. black (5Y2/1); hints of banding (does not appear to be bioturbated)

41 cm = bottom of sect. 1; 191 cmbsf = base of core GC29

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC30 Sect.: 2 (0-150 cmbsf) Lat.: 23 18.30 N Long.: 110 27.53 W
Water Depth: 705 m



Remarks

SILTY CLAY (organic-rich):
0-102 cm: predominantly homogeneous olive gray (5Y4/1) wi
several darker bands (ol. black, 5Y2/1); hints of banding
(does not appear to be bioturbated)

102-150 cm: 5Y4/1, bioturbated

smear slides

ss 90 cm (dark layer)
A: clay; organic matter; lithic fragments
C: nannos; forams; pyrite; sponge spic.; fish debris
B: diatoms; rads

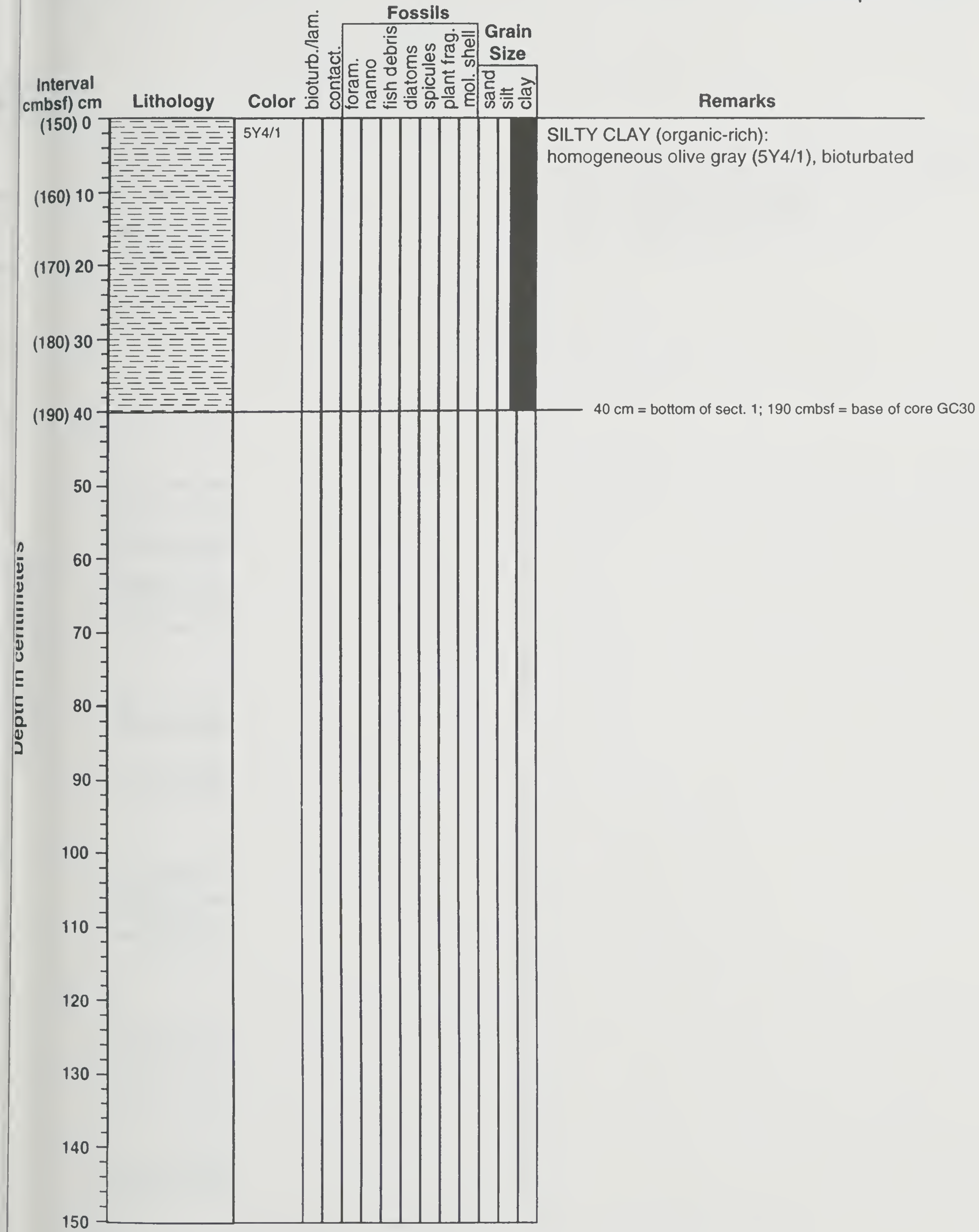
ss 100 cm (light)
A: clay; organic matter
C: pyrite; lithic fragments; nannos; forams; sponge spic.; fish debris
B: diatoms; rads

150 cm = bottom of sect. 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC30 Sect.: 1 (150-190 cmbsf) Lat.: 23 18.30 N Long.: 110 27.53 W

Water Depth: 705 m



SILTY CLAY (organic-rich): homogeneous olive gray (5Y4/1), bioturbated

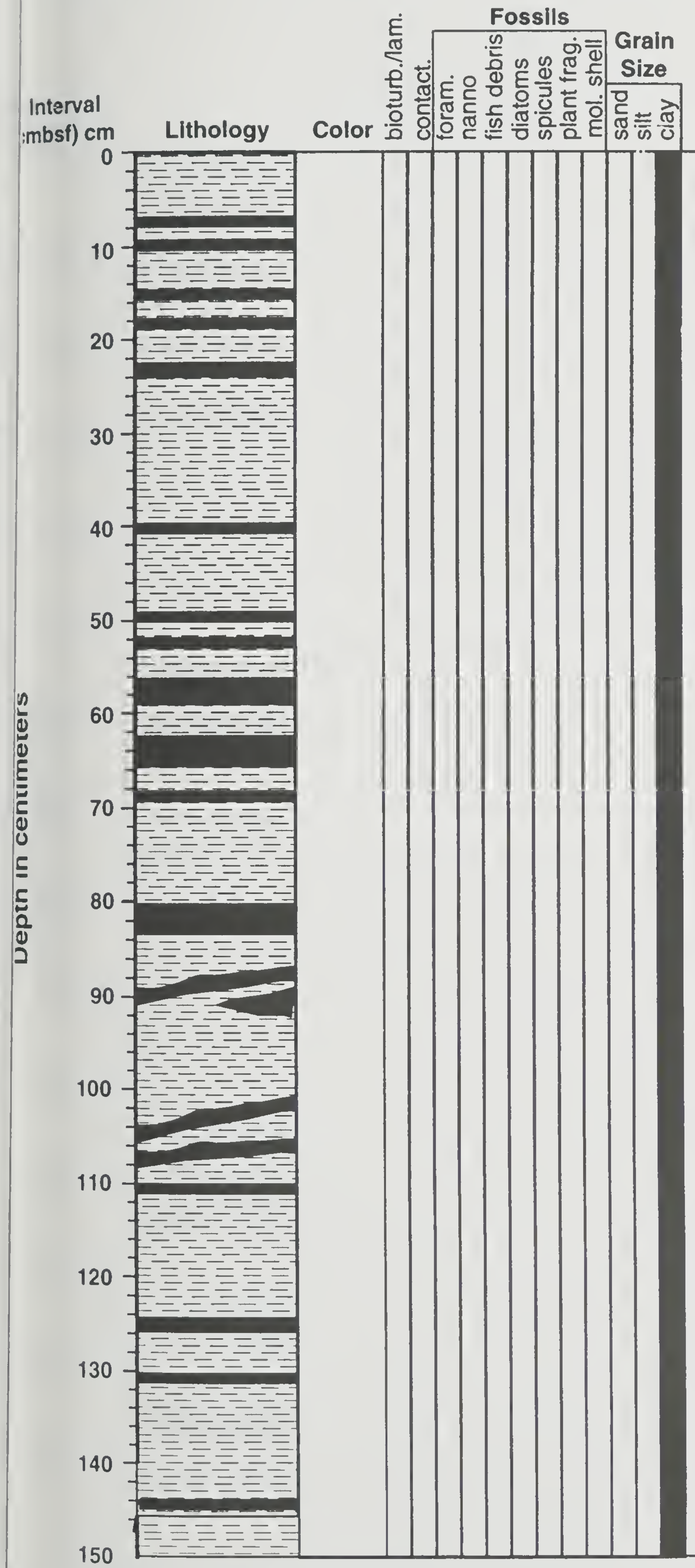
40 cm = bottom of sect. 1; 190 cmbsf = base of core GC30

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC31 Sect.: 3 (0-150 cmbsf) Lat.: 23 28.03 N Long.: 111 35.91 W

Water Depth: 705 m



Remarks

CLAY (organic-rich): basic stratigraphy is cm-scale interlayering of light and dark bands. there are some slight variations in color, but the basic colors are

dark: ol. black, 5Y2/1 ■

light: mod. yel. brown (5Y4/4) ▤

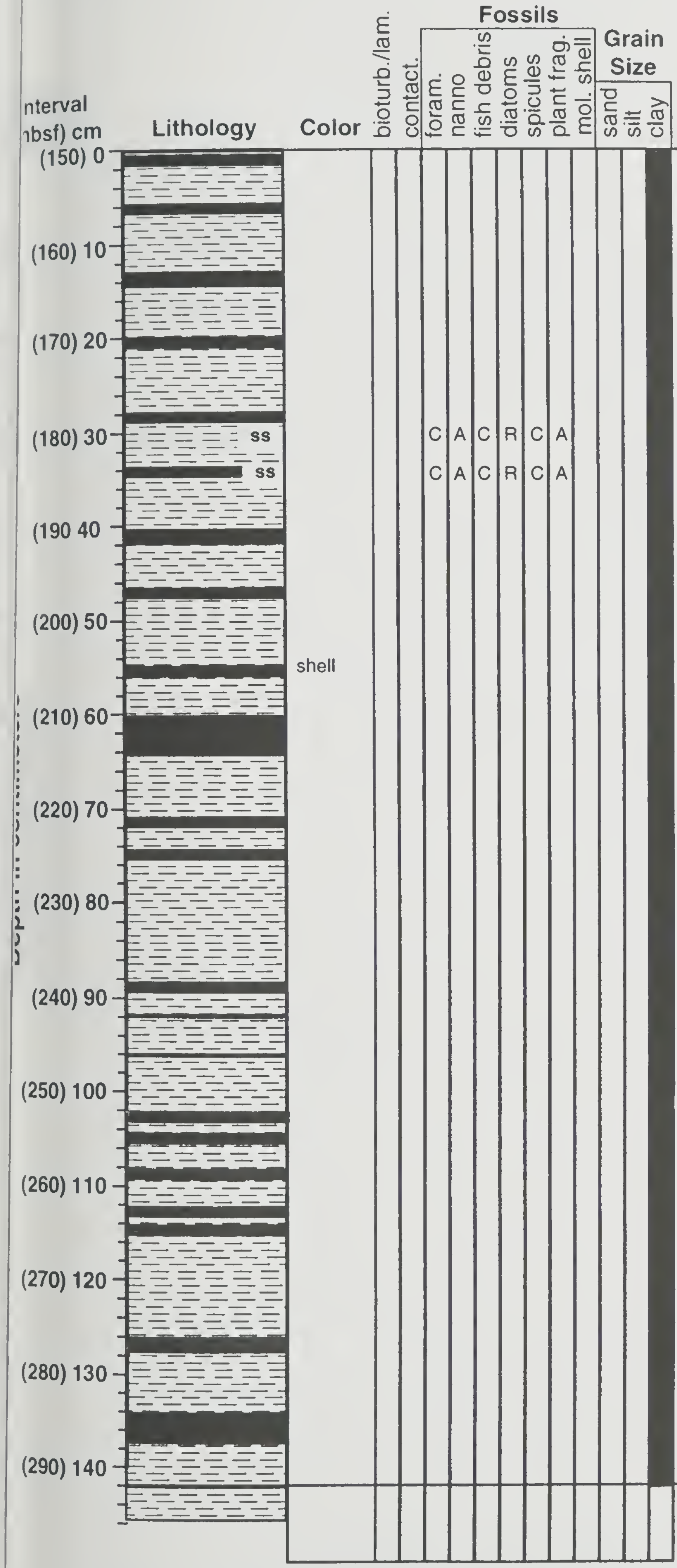
150 cm = bottom of section 3

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC31 Sect.: 2 (150-292 cmbsf) Lat.: 23 28.03 N Long.: 111 35.91 W

Water Depth: 705 m



Remarks

CLAY (organic-rich, nanno- and foram-bearing): basic stratigraphy is cm-scale interlayering of light and dark bands. there are some slight variations in color, but the basic colors are

dark: ol. black, 5Y2/1 ■
light: mod. yel. brown, 5Y4/4 ▤

smear slides

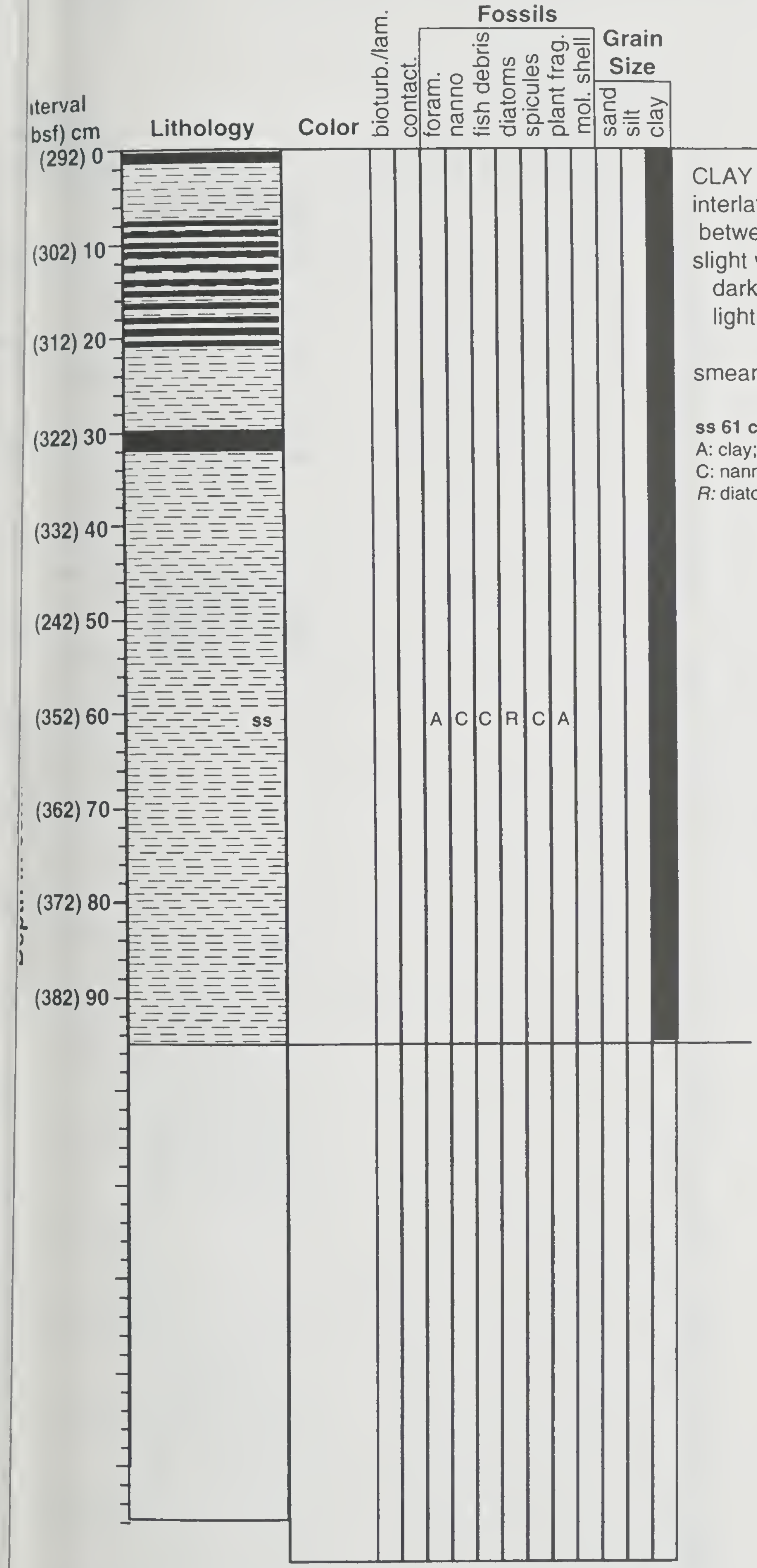
ss 30 cm (light)
A: clay; nannos; organic matter
C: forams; pyrite; sponge spic.;.
R: diatoms (*Paralia; Azpeitia; Chaetoceros* resting spores; girdle bands ; rad silicoflag

ss 33 cm (dark)
A: clay; nannos; organic matter
C: nannos; sponge spic; palynom.; pyrite; lithic fragments
R: fish debris; silicoflag.; diatoms (*Thalassionema; Azpeitia; Coscinodiscus; Thalassiosina; Chaetoceros* resting spores; girdle bands); rads

142 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

)XMZ01MV Core: GC31 Sect.: 1 (292-387 cmbsf) Lat.: 23 28.03 N Long.: 111 35.91 W
Water Depth: 705 m



Remarks

CLAY (organic-rich, nanno- and foram-bearing): interlayering of light and dark bands on a cm-scale and, between 7 and 21 cm, on a mm-scale. There are some slight variations in color, but the basic colors are
dark: ol. black, 5Y2/1 ■
light: mod. yel. brown, 5Y4/4 ▤

smear slides

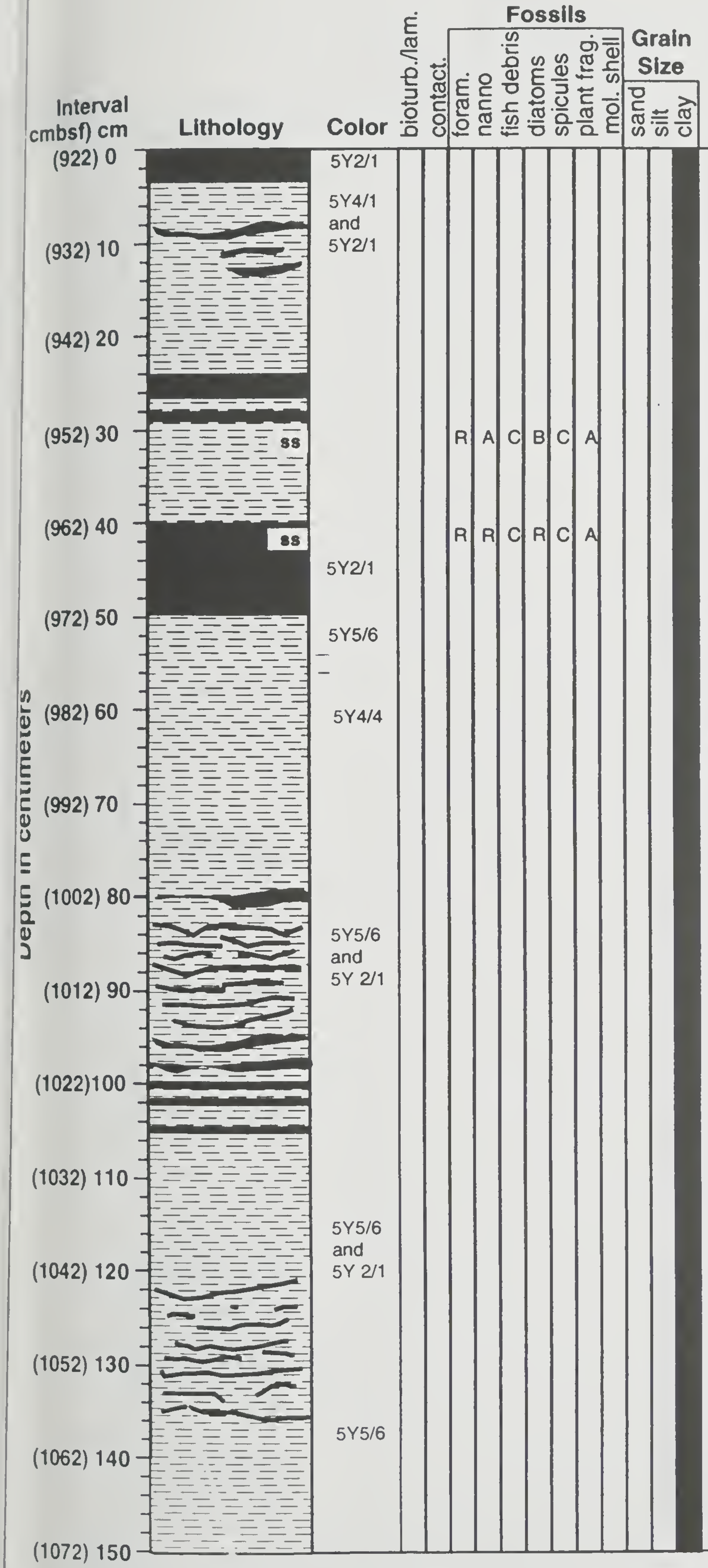
ss 61 cm (light)
A: clay; forams; organic matter
C: nannos; pyrite; sponge spic.; lithic frags..
R: diatoms

95 cm = bottom of section 1; 387 cmbsf = base of core GC31

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: PC04 Sect.: 1 (922-1072 cmbsf) Lat.: 23 37.85 N Long.: 111 09.00 W

Water Depth: 728 m



Remarks

CLAY (organic-rich):

4-40 cm: predom . ol. gray (5Y4/1) w/ relic layer of ol. black (5Y2/1)

50-80 cm: more or less homogeneous lt. ol. brown (5Y5/6)

80-115 cm: 5Y5/6 w/ bands of 5Y2/1

115-122 cm: mottling and faint banding of 5Y2/1 and 5Y5/6

122-135 cm: predom. 5Y2/1 w/ faint (relic?) bands of 5Y4/1 and 5Y5/6

135-150 cm: homogen. 5Y5/6

smear slides

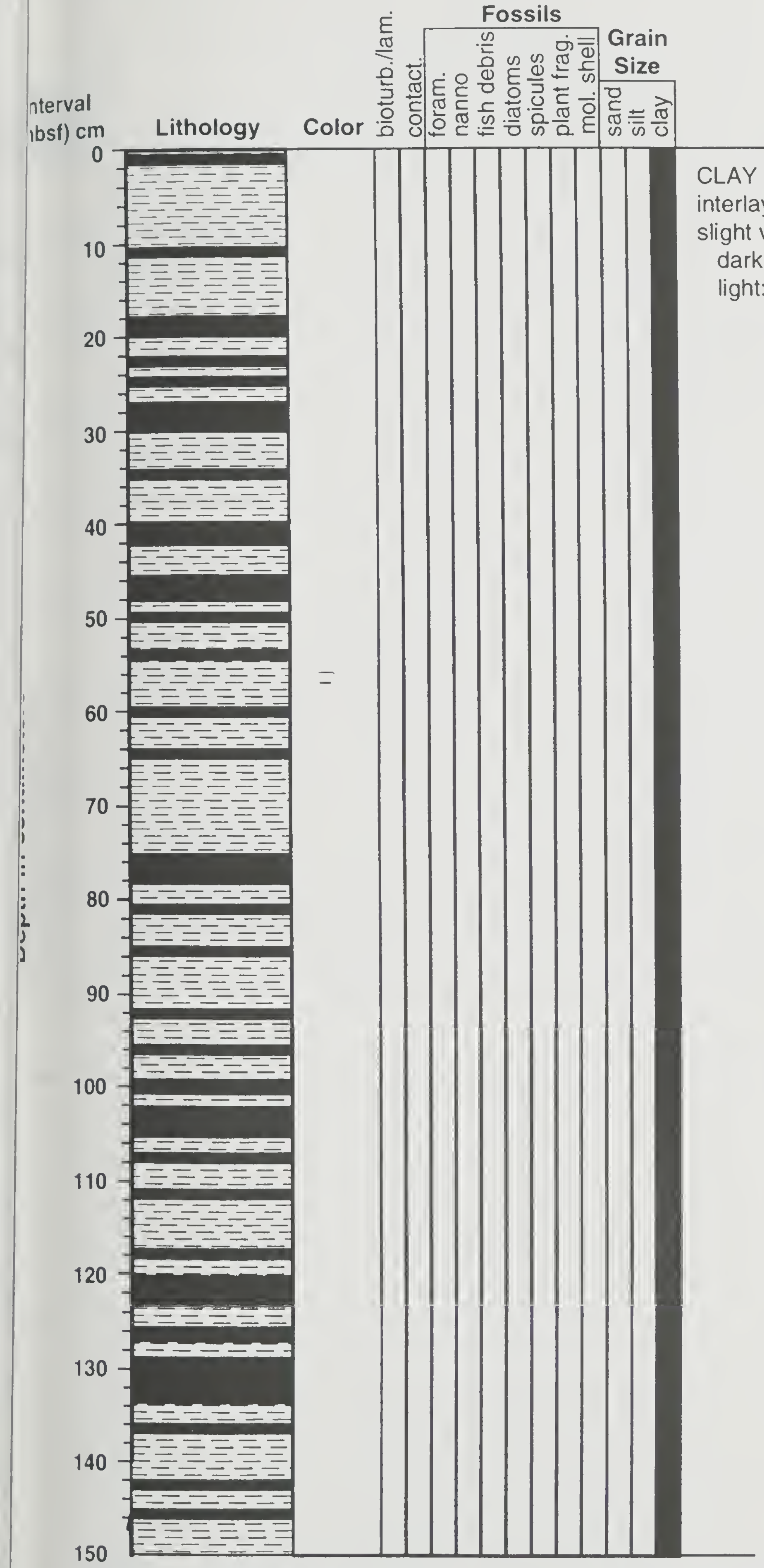
ss 32 cm (light)
A: clay; organic matter; nannos
C: sponge spicules; fish debris; pyrite
R: forams
B: diatoms

ss 42 cm (dark)
A: clay; organic matter; nannos
C: sponge spicules; fish debris; pyrite
R: forams; nannos; diatoms; silicoflag.; rads

150 cm = bottom of sect. 1; 1072 cmbsf = base of PC04

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: GC32 Sect.: 2 (0-150 cmbsf) Lat.: 23 36.5 N Long.: 111 33.50 W
Water Depth: 430 m



Remarks

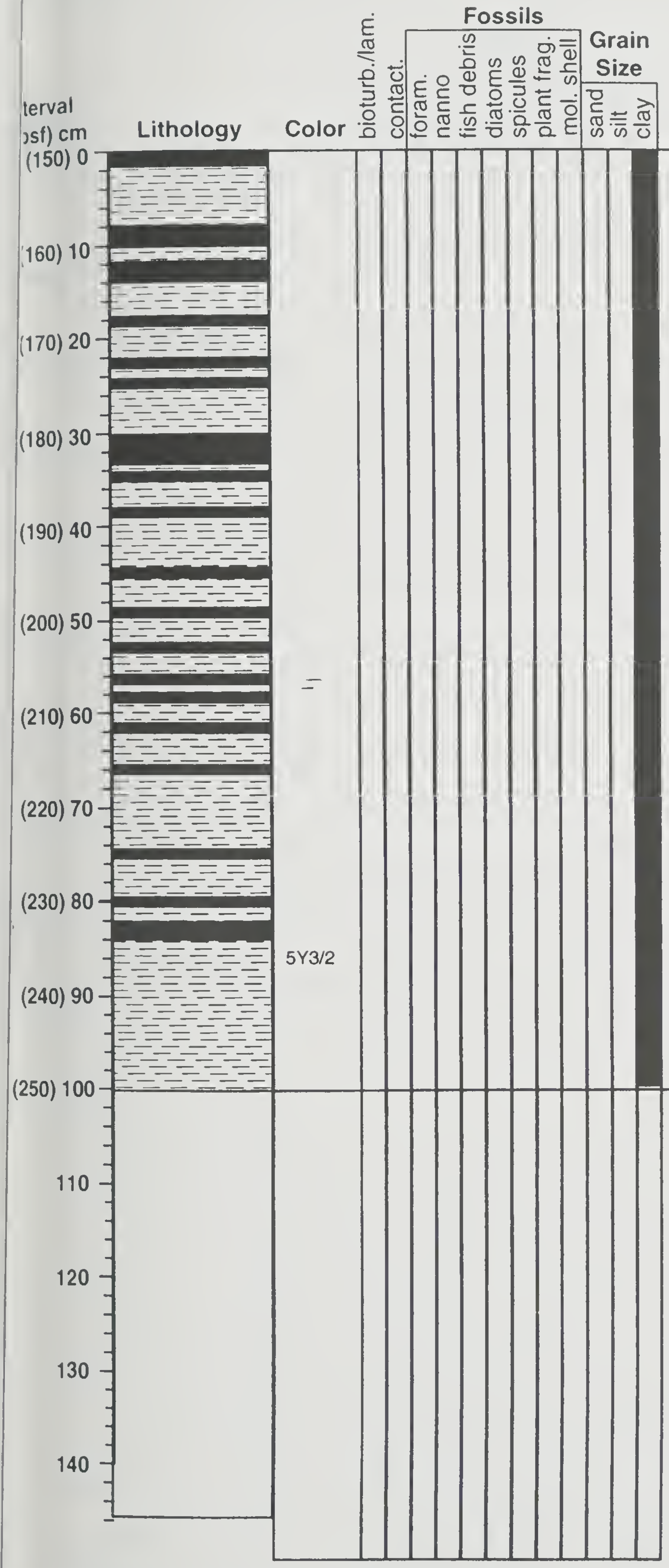
CLAY (organic-rich): basic stratigraphy is cm-scale interlayering of light and dark bands. there are some slight variations in color, but the basic colors are
dark: ol. black, 5Y2/1 ■
light: dusky yel. brown (5YR2/2) ▤

150 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: GC32 Sect.: 1 (150-250 cmbsf) Lat.: 23 36.5 N Long.: 111 33.50 W

Water Depth: 430 m



Remarks

CLAY (organic-rich):

0-84 cm: cm-scale interlayering of light and dark bands. There are some slight variations in color, but the basic colors are

dark: brownish black, 5YR2/1 ■

light: dusky yel. brown (5YR2/2) ▤

84-100 cm: bioturbated olive gray (5Y3/2)

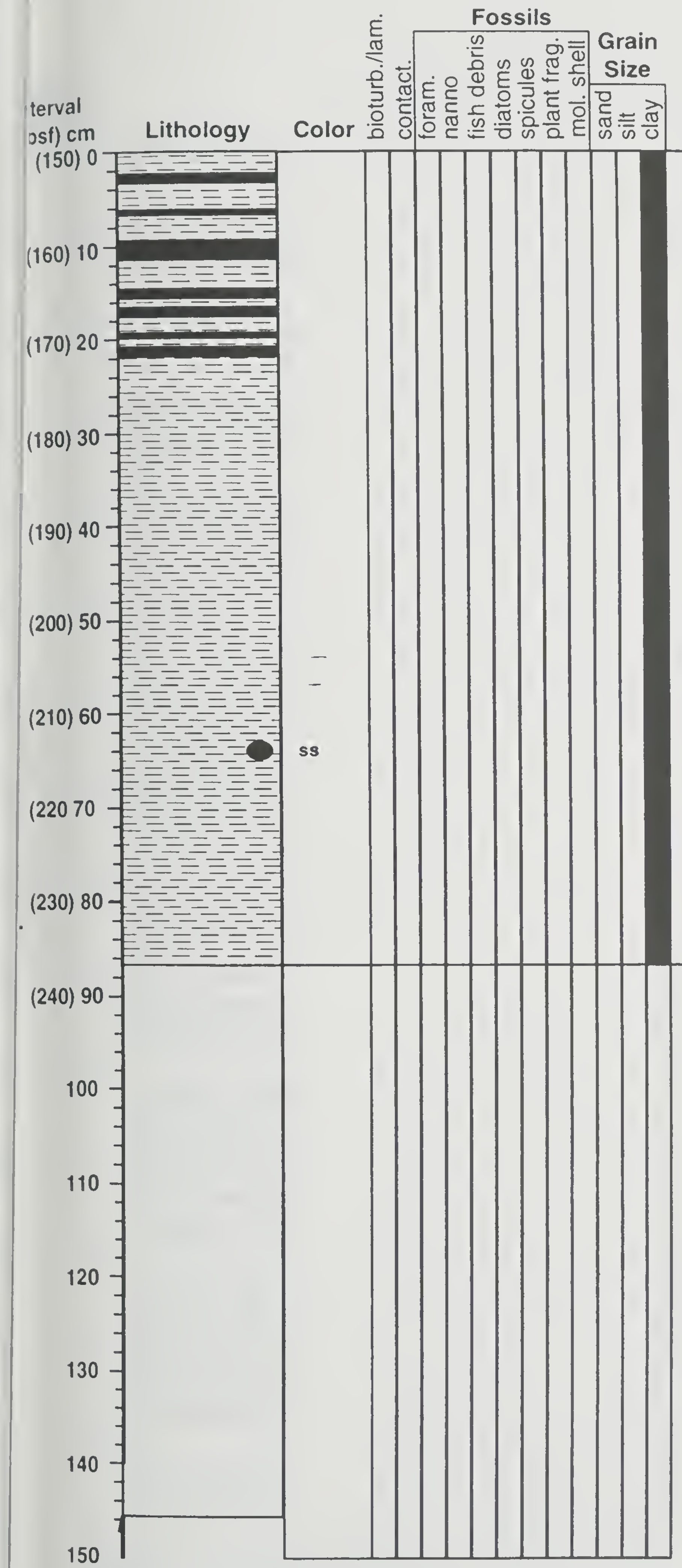
150 cm = bottom of section 1; 250 cmbsf = base of core GC32

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: GC33 Sect.: 1 (150-237 cmbsf) Lat.: 23 35.74 N Long.: 111 30.69 W

Water Depth: 540 m



Remarks

CLAY (organic-rich):

0-22 cm: basic stratigraphy is cm-scale interlayering of light and dark bands. There are some slight variations in color, but the basic colors are

dark: ol. black, 5Y2/1 ■

light: dusky yel. brown, 10YR2/2 ▤

22-87 cm: homogeneous, bioturbated ol. gray (5Y3/2)

ss 64 cm ("bubble gum" nodule; pale red, 10YR6/2)
high-relief, amorphos mineral; isotropic

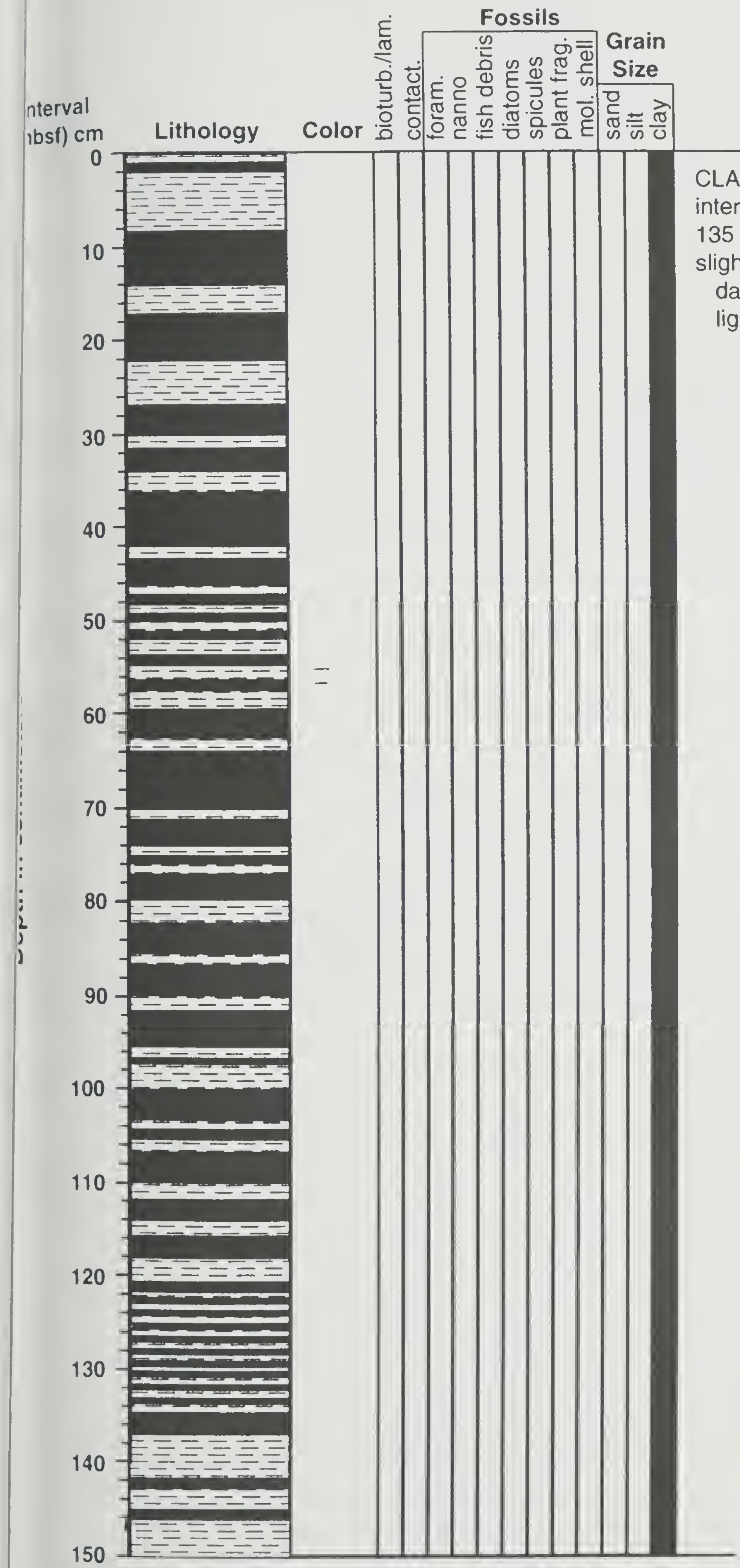
87 cm = bottom of section 1 ; 237 cmbsf = base of core PC33

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: GC33 Sect.: 2 (0-150 cmbsf) Lat.: 23 35.74 N Long.: 111 30.69 W

Water Depth: 540 m



Remarks

CLAY (organic-rich): basic stratigraphy is cm-scale interlayering of light and dark bands. Bands between 122 an
135 are mm-scale laminations. There are some slight variations in color, but the basic colors are

dark: ol. black, 5Y2/1 ■

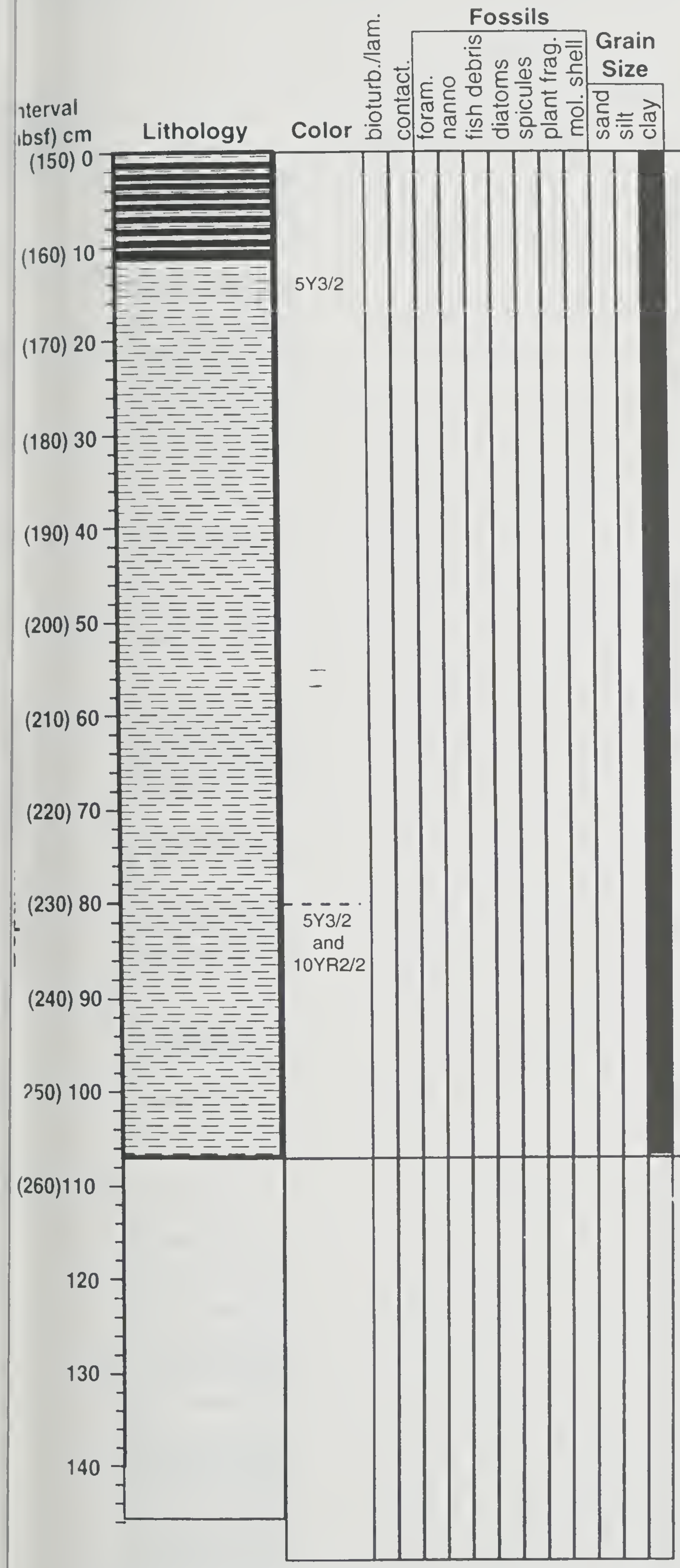
light: dusky yel. brown (10YR2/2) ▤

150 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: GC34 Sect.: 1 (150-257 cmbsf) Lat.: 23 32.25 N Long.: 111 27.50 W
Water Depth: 650 m



Remarks

CLAY (organic-rich):
0-10 cm: mm-scale dark/light laminations, similar to the cm-scle banding in Sect. 2, but thinner; There are some slight variations in color, but the basic colors are
dark: ol. black, 5Y2/1 ■
light: dusky yel. brown (10YR2/2) ▤

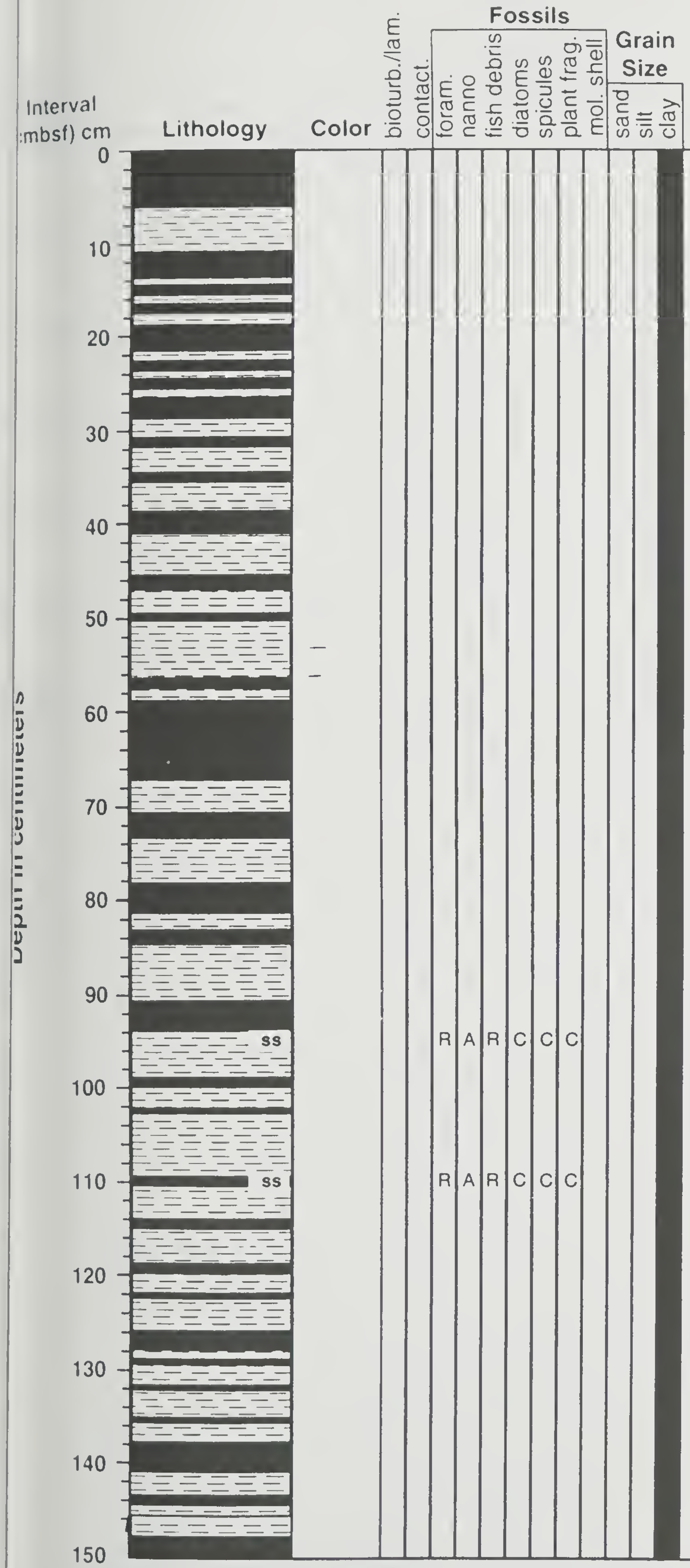
10-80 cm: homogeneous, bioturbated olive gray (5Y3/2)
80-107 cm: bioturbated; mottled olive gray (5Y3/2) and dusky yel. brown (10YR2/2)

107 cm = bottom of section 1; 257 cmbsf = base of core GC34

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC34 Sect.: 2 (0-150 cmbsf) Lat.: 23 32.25 N Long.: 111 27.50 W

Water Depth: 650 m



CLAY (organic-rich; foram- and nanno-bearing): basic stratigraphy is cm-scale interlayering of light and dark bands. There are some slight variations in color, but the basic colors are

dark: ol. black, 5Y2/1 ■

light: dusky yel. brown (10YR2/2) ▤

smear slides

ss 95 cm (light)

A: clay; forams; organic matter

C: nannos; pyrite; sponge spic.

R: diatoms; lithic frags.;rads; fish debris; silicoflag.

ss 110 cm (dark)

A: clay; nannos; organic matter

C: forams; nannos; pyrite; sponge spic; fish debris; lithic frags.

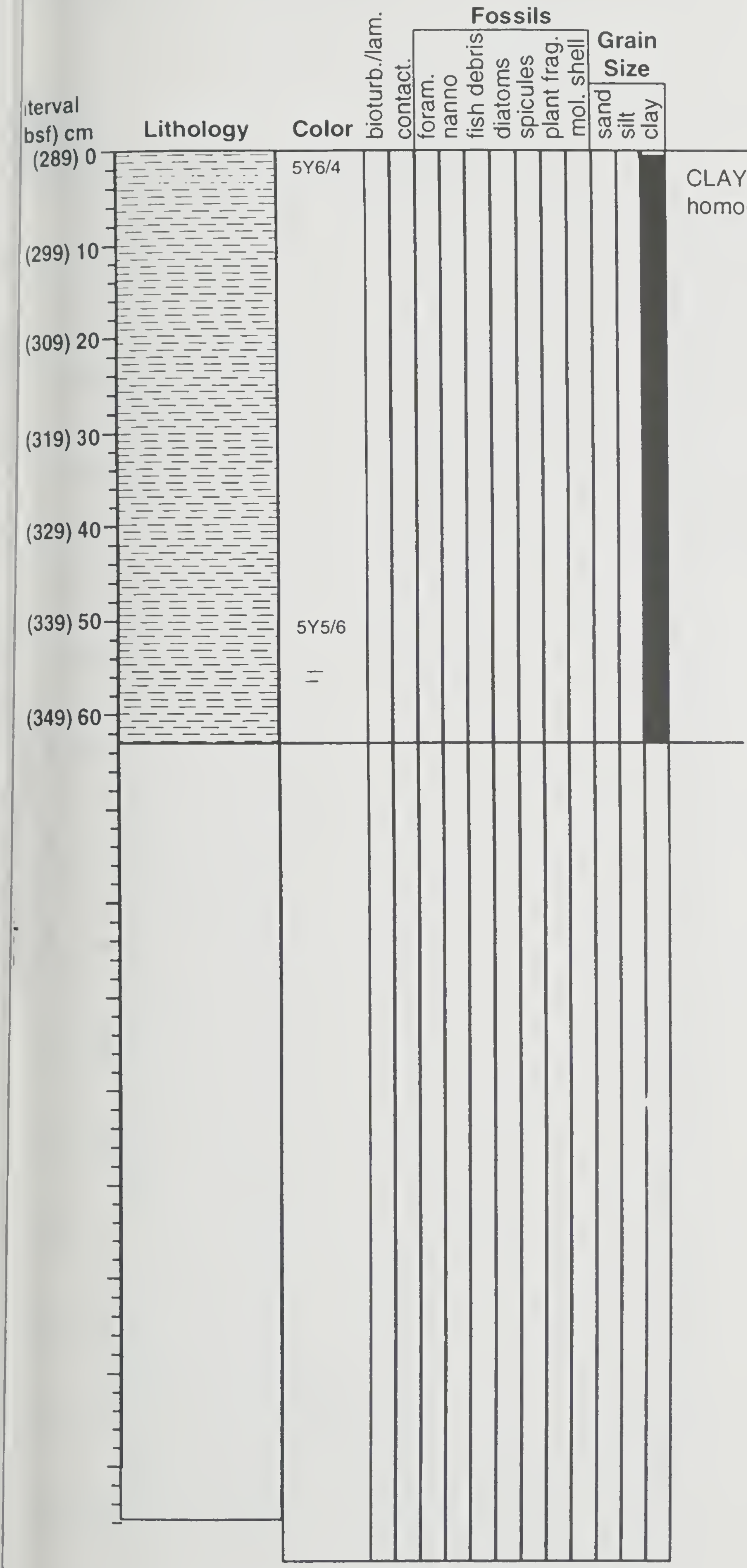
R: diatoms; rads

150 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

)XMZ01MV Core: GC35 Sect.: 1 (289-352 cmbsf) Lat.: 23 56.63 N Long.: 111 19.79 W
Water Depth: 504 m

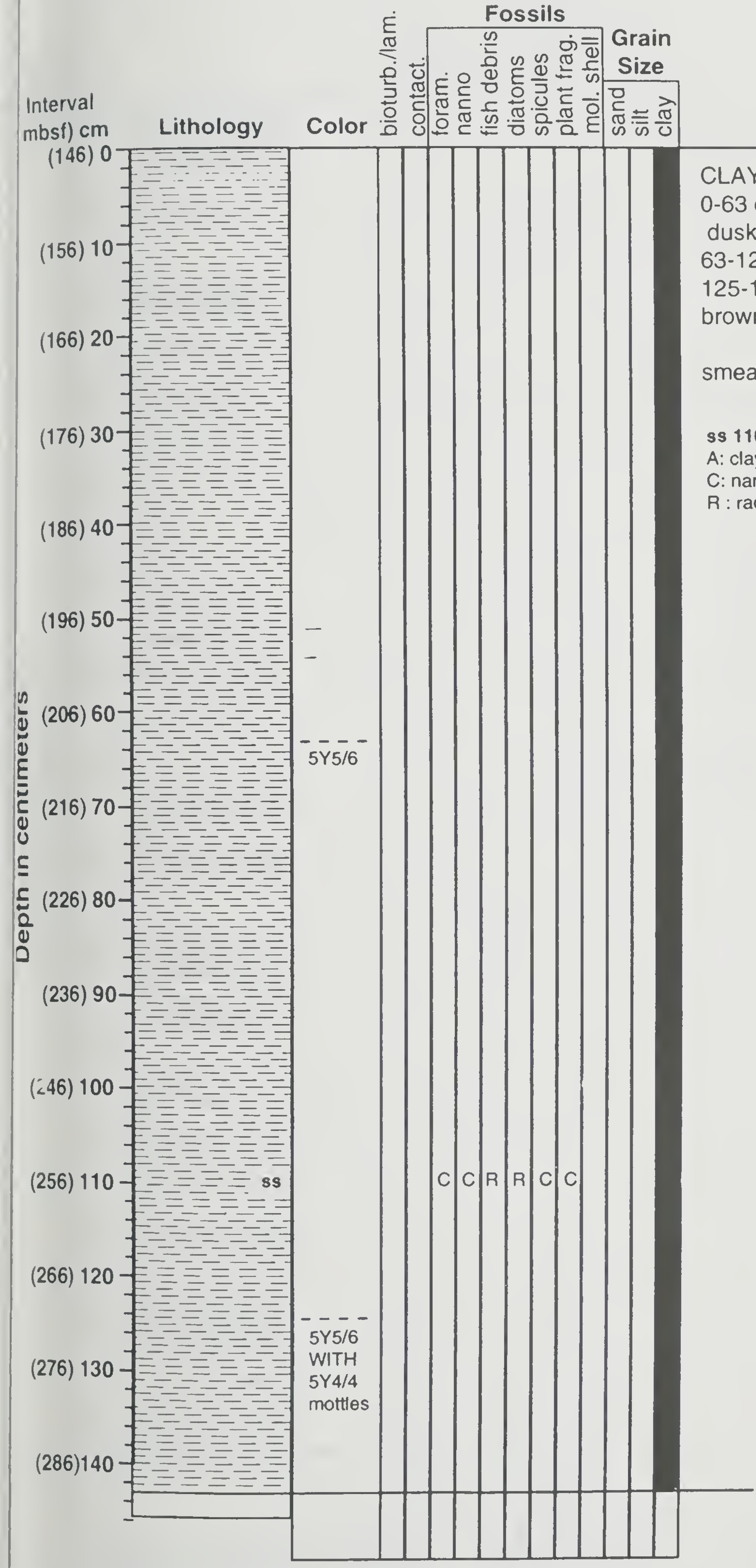


CLAY (organic-rich; nanno-bearing): homogeneous, dusky yellow (5Y6/4) to lt. ol. brown (5Y5/6)

63 cm = bottom of section 1; 352 cmbsf = base of core GC35

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC35 Sect.: 2 (146-289 cmbsf) Lat.: 23 56.63 N Long.: 111 19.79 W
Water Depth: 504 m



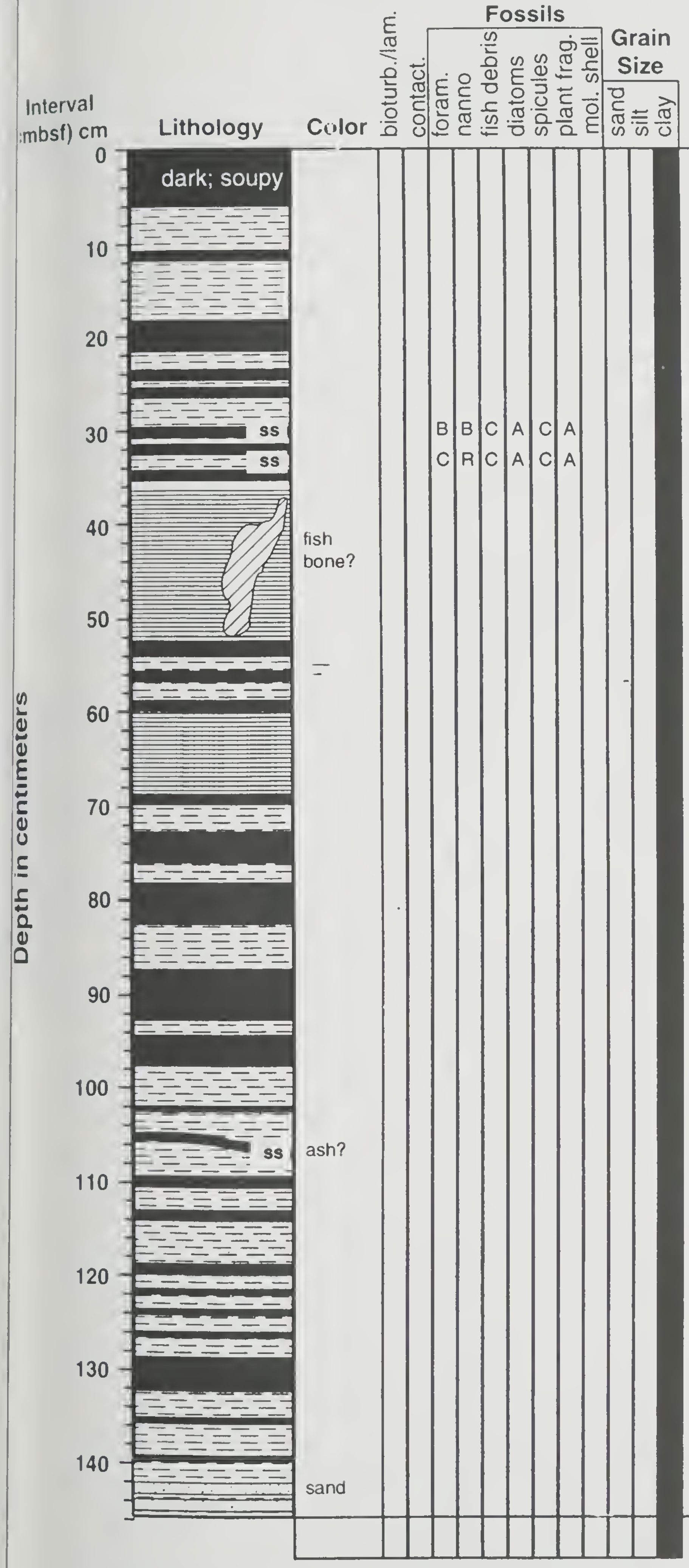
CLAY (organic-rich; nanno-bearing):
0-63 cm: mm-scale banding of ol. black (5y2/1) and dusky yellow (5Y6/4)
63-125 cm: homogen. lt. ol brown (5Y5/6)
125-143 cm: bioturbated 5Y5/6 w/ darker mottles (mod. ol. brown, 5Y4/4)

smear slides

ss 110 cm (dom. lith)
A: clay
C: nannos; forams; sponge spic.; organic matter
R : rads; pyrite; diatoms; fish debris

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC35 Sect.: 3 (0-146 cmbsf) Lat.: 23 56.63 N Long.: 111 19.79 W
Water Depth: 504 m



Remarks

CLAY (organic-rich; diatom-bearing):
Basic stratigraphy is cm-scale interlayering of light and dark bands, however, banding betwen 35 and 52 cm, and 60-78 cm is mm-scale lamination. There are some slight variations in color, but the basic colors are
dark: ol. black, 5Y2/1 ■
light: dark yel. brown (10YR4/2) ▤

smear slides

ss 30 cm (dark)
A: clay; diatoms (*Thalassionema; Cyclotella; Thalassiosira; Azpeitia; Coscinodiscus; Chaetoceros* spores; girdle bands; fragments); organic matter
C: pyrite; sponge spic.; fish debris
R : rads; forams
B: nannos

ss 32 cm (light)
A: clay; diatoms (*Thalassionema; Cyclotella; Thalassiosira; Hemidiscus; Pseudoeunotia; Navicula; Raphoneis; Chaetoceros* resting spores; centric girdle bands); organic matter
C: forams; pyrite; sponge spic; fish debris
R: nannos; rads; silicoflagil.

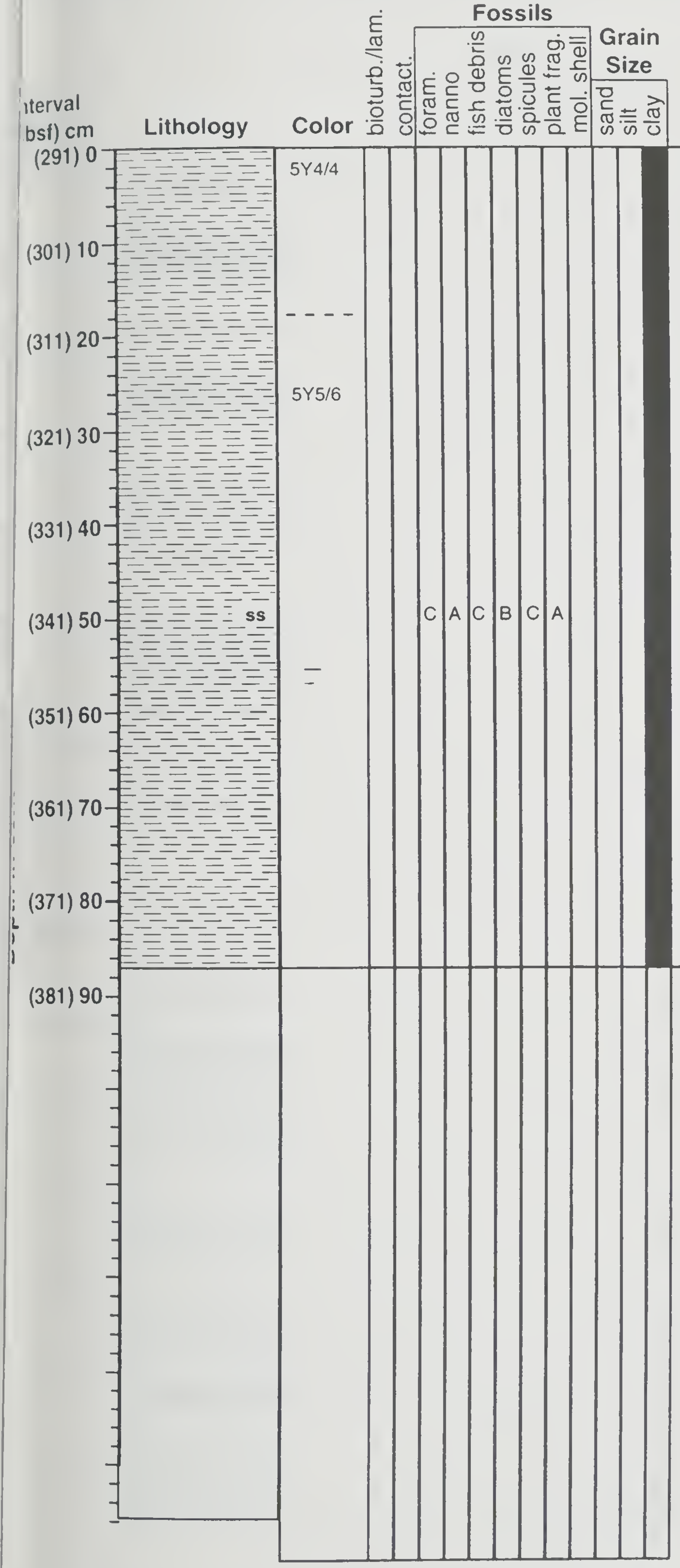
ss 107 cm (ash?)
A: clay
C:glas shards
R: fish debris

146 cm = bottom of section 3

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: GC36 Sect.: 1 (291-378 cmbsf) Lat.: 23 57.83 N Long.: 111 09.03 W

Water Depth: 711 m



Remarks

CLAY (organic-rich; diatom-bearing):
0-18 cm: well banded on a cm-scale, but individual bands ca
not be separated; moderate ol. brown (5Y4/4)
18-87 cm: homogeneous lt. ol. brown (5Y5/6)

smear slides

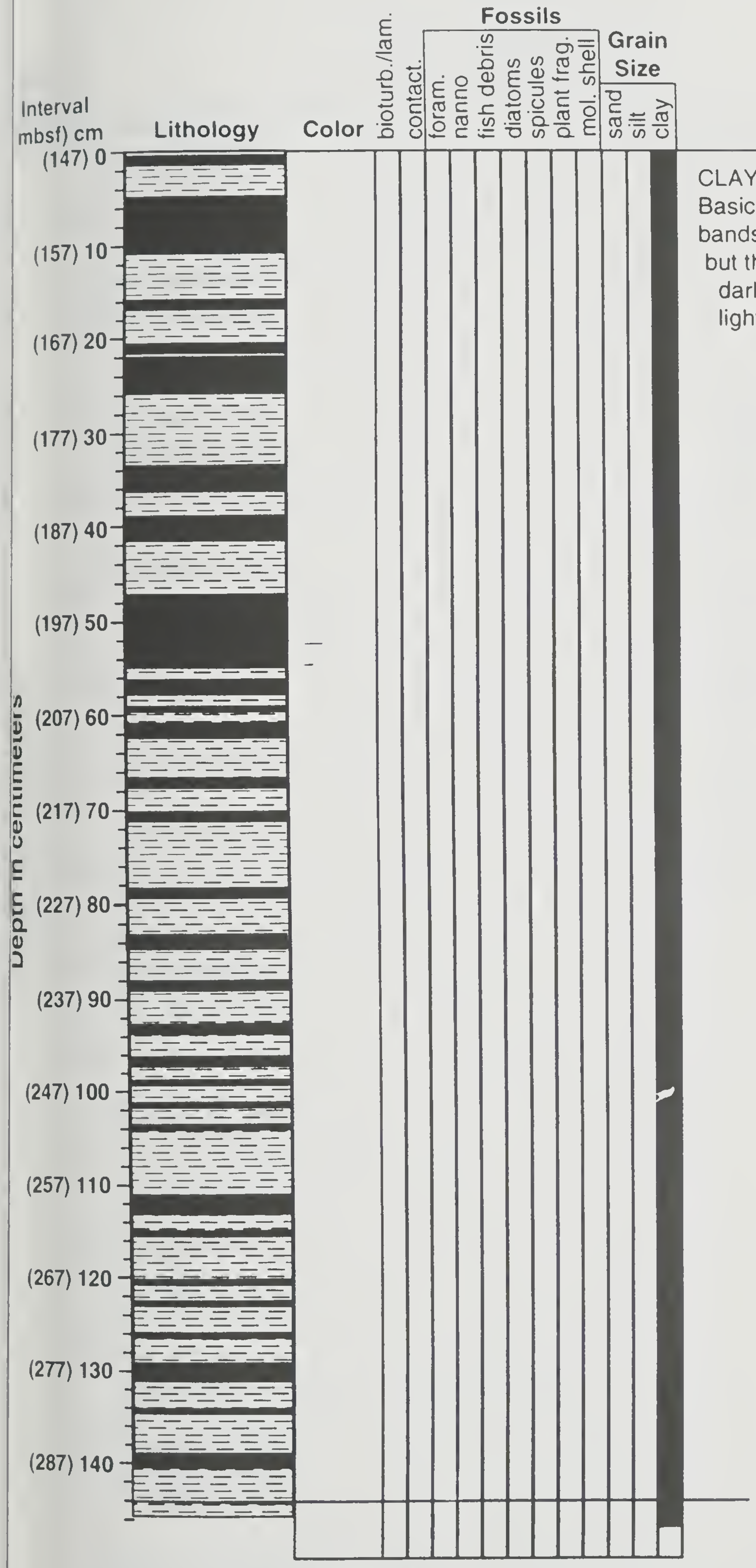
ss 50 cm (dom. homog. lith)
A: clay; nannos; organic matter
C: pyrite; sponge spic.; fish debris; forams
R : rads
B: diatoms

87 cm = bottom of section 1; 378 cmbsf = base of core GC36

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC36 Sect.: 2 (147-291 cmbsf) Lat.: 23 57.83 N Long.: 111 09.03 W

Water Depth: 711 m



Remarks

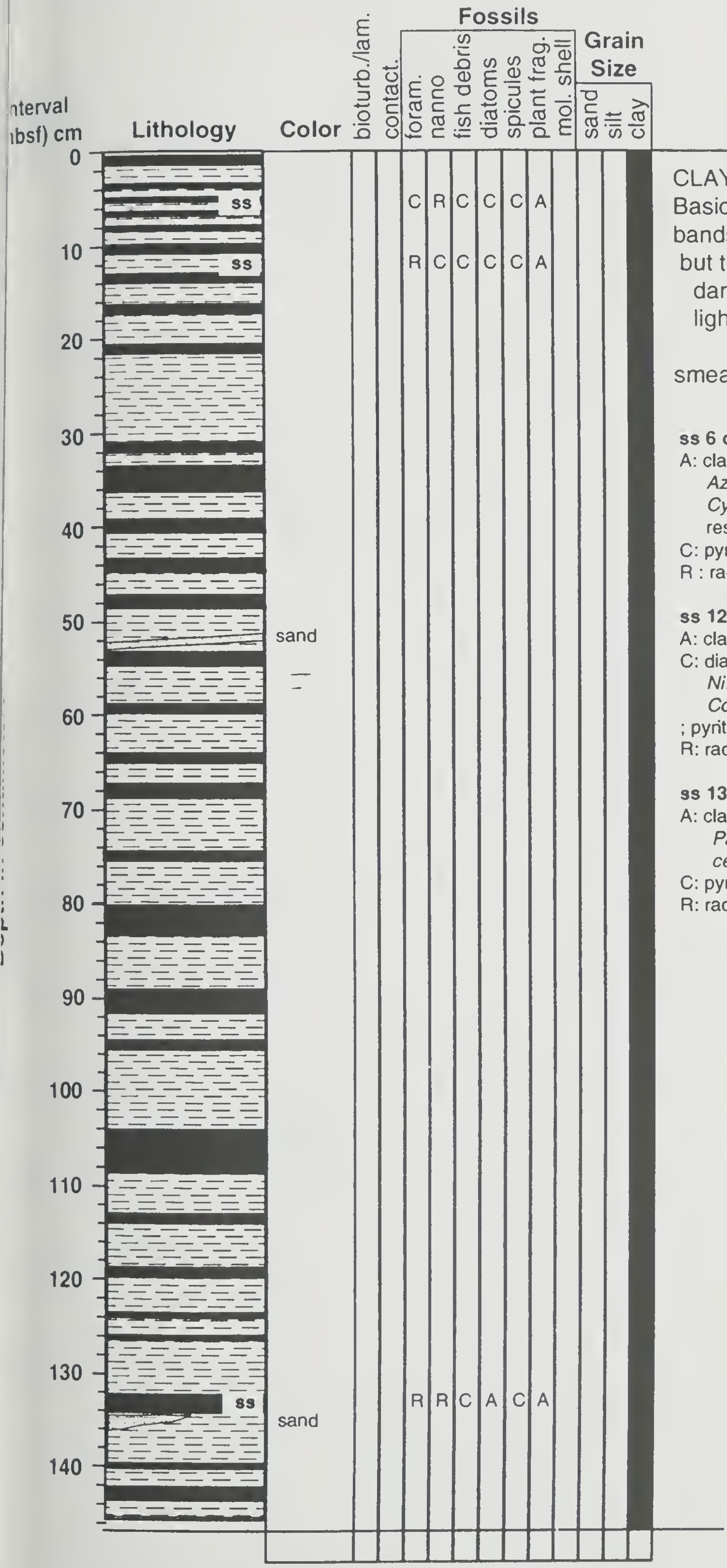
CLAY (organic-rich; diatom-bearing):
Basic stratigraphy is cm-scale interlayering of light and dark bands. There are some slight variations in color, but the basic colors are

dark: ol. gray, 5Y3/2 ■
light: light ol. brown (5Y5/6) ▤

144 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: GC36 Sect.: 3 (0-147 cmbsf) Lat.: 23 57.83 N Long.: 111 09.03 W
Water Depth: 711 m



Remarks

CLAY (organic-rich; diatom-bearing):
Basic stratigraphy is cm-scale interlayering of light and dark bands. There are some slight variations in color, but the basic colors are
dark: ol. black, 5Y2/1 █
light: dark yel. brown (10YR4/2) ▤

smear slides

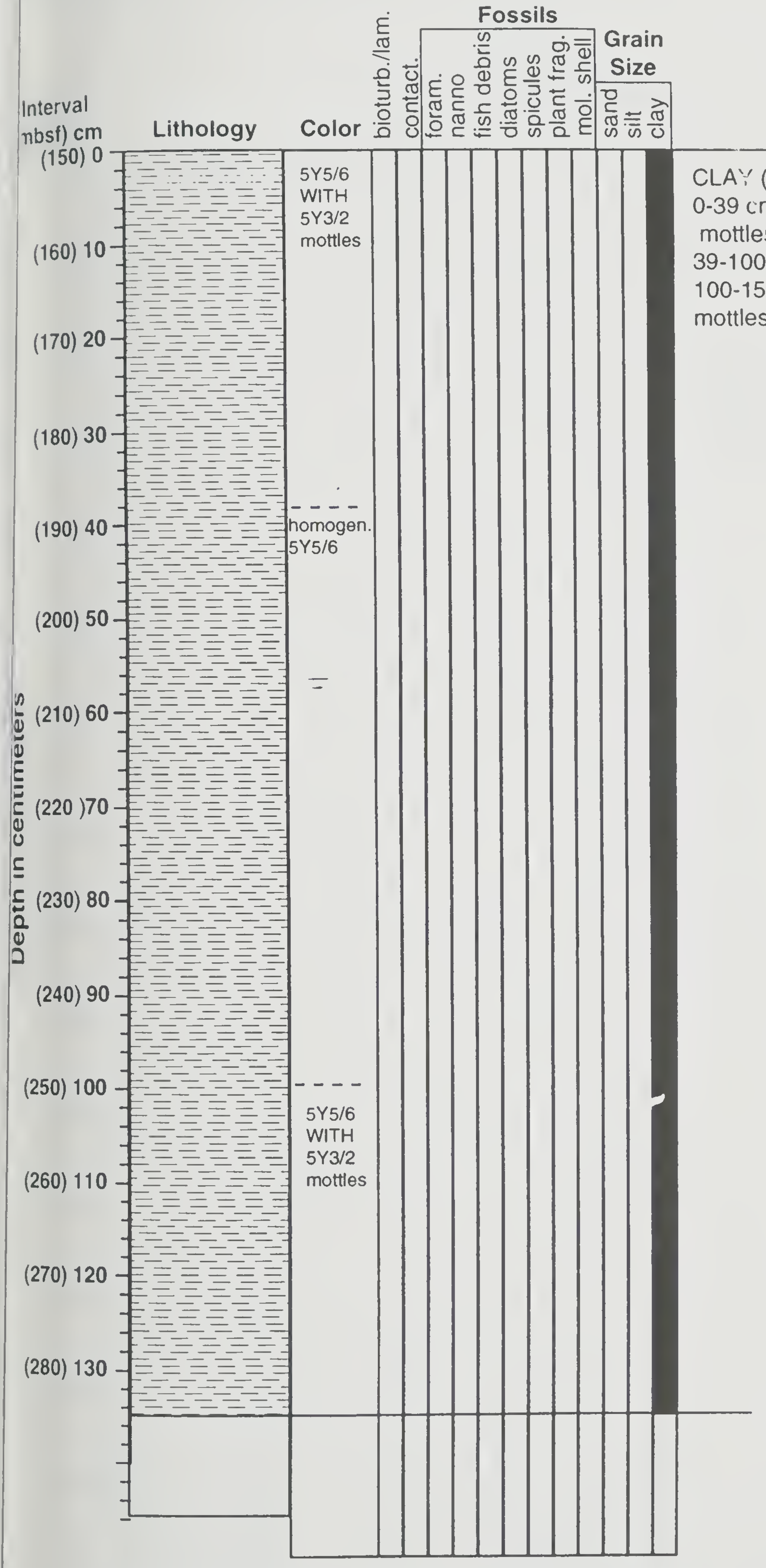
ss 6 cm (dark)
A: clay; diatoms ((*Thalassionema; Coscinodiscus; Lyrella; Raphoneis; Azpeitia; Paralia; Nitzschia; Pseudoeunotia; Hemidiscus; Thalassiosira; Cyclotella; Actinoptychus; Rhizosolenia; Triceratium; Chaetoceros* resting spores; girdle bands); organic matter
C: pyrite; sponge spic.; fish debris; forams
R : rads; nannos; silicoflag.

ss 12 cm (light)
A: clay; organic matter
C: diatoms *(Thalassionema; Coscinodiscus; Odontella; Azpeitia; Paralia; Nitzschia; Pseudoeunotia; Hemidiscus; Thalassiosira; Cyclotella; Cocconeis; Chaetoceros* resting spores; centric girdle bands)
; pyrite; sponge spic; fish debris; nannos; forams
R: rads; silicoflagil.

ss 134 cm (dark)
A: clay; organic matter; diatoms *(Thalassionema; Coscinodiscus; Azpeitia; Paralia; Navicula; Thalassiosira; Cyclotella; Chaetoceros resting spores, centric girdle bands)*
C: pyrite; sponge spic.; fish debris
R: rads; nannos; silicoflag.; forams

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC37 Sect.: 1 (150-285 cmbsf) Lat.: 23 20.08 N Long.: 111 01.01 W
Water Depth: 974 m



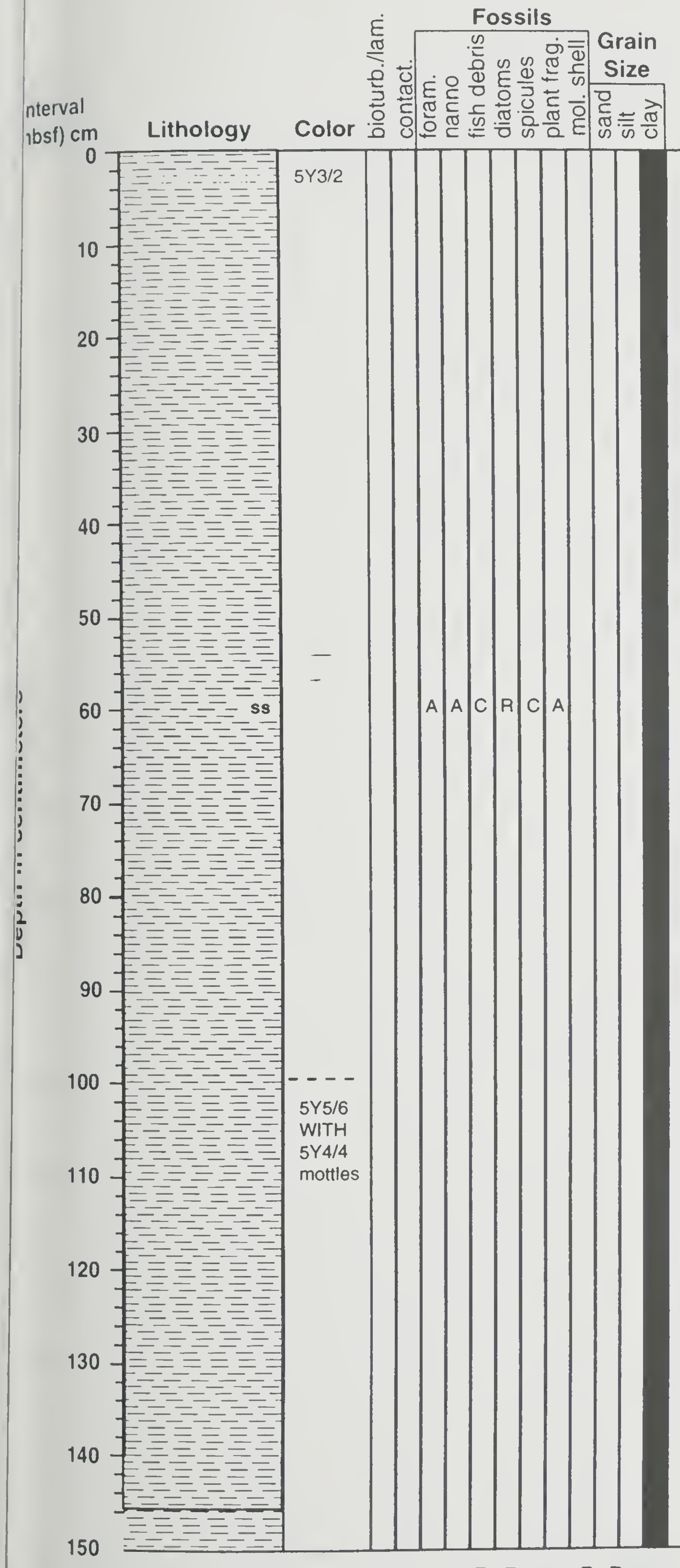
Remarks

CLAY (organic-rich; nanno- and foram-bearing):
0-39 cm: bioturbated. lt. ol. gray (5Y5/6) w/ darker burrow mottles (ol. gray, 5Y3/2)
39-100 cm: homogeneous 5Y5/6
100-150 cm: bioturbated lt. ol. gray (5Y5/6) w/ darker burrow mottles (ol. gray, 5Y3/2)

135 cm = bottom of section 1; 285 cmbsf = base of core PC37

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC37 Sect.: 2 (0-150 cmbsf) Lat.: 23 20.08 N Long.: 111 01.01 W
Water Depth: 974 m



Remarks

CLAY (organic-rich; nanno- and foram-bearing):
0-100 cm: homogeneous ol. gray (5Y3/2)
100-150 cm: bioturbated lt. ol. gray (5Y5/6) w/ darker burrow mottles (dark gray, 5Y3/2)

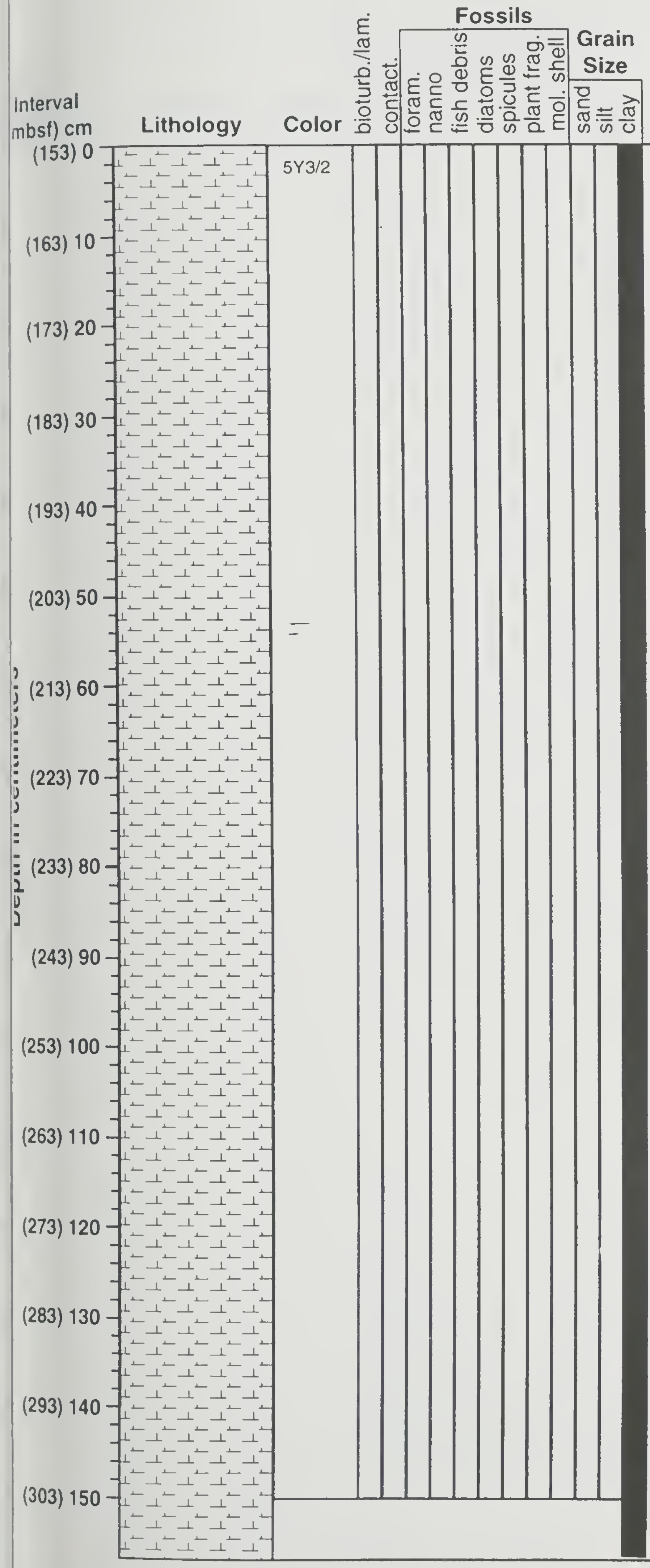
smear slides

ss 60 cm (dom. lith)
A: clay; forams; nannos; organic matter
C: sponge spic.; organic matter; pyrite; fish debris
R : rads; diatoms

150 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC38 SECTION: 1 (153-308 cmbsf) Lat.:23 13.05 N Long.: 111 04.73 W
Water Depth: 1269 m



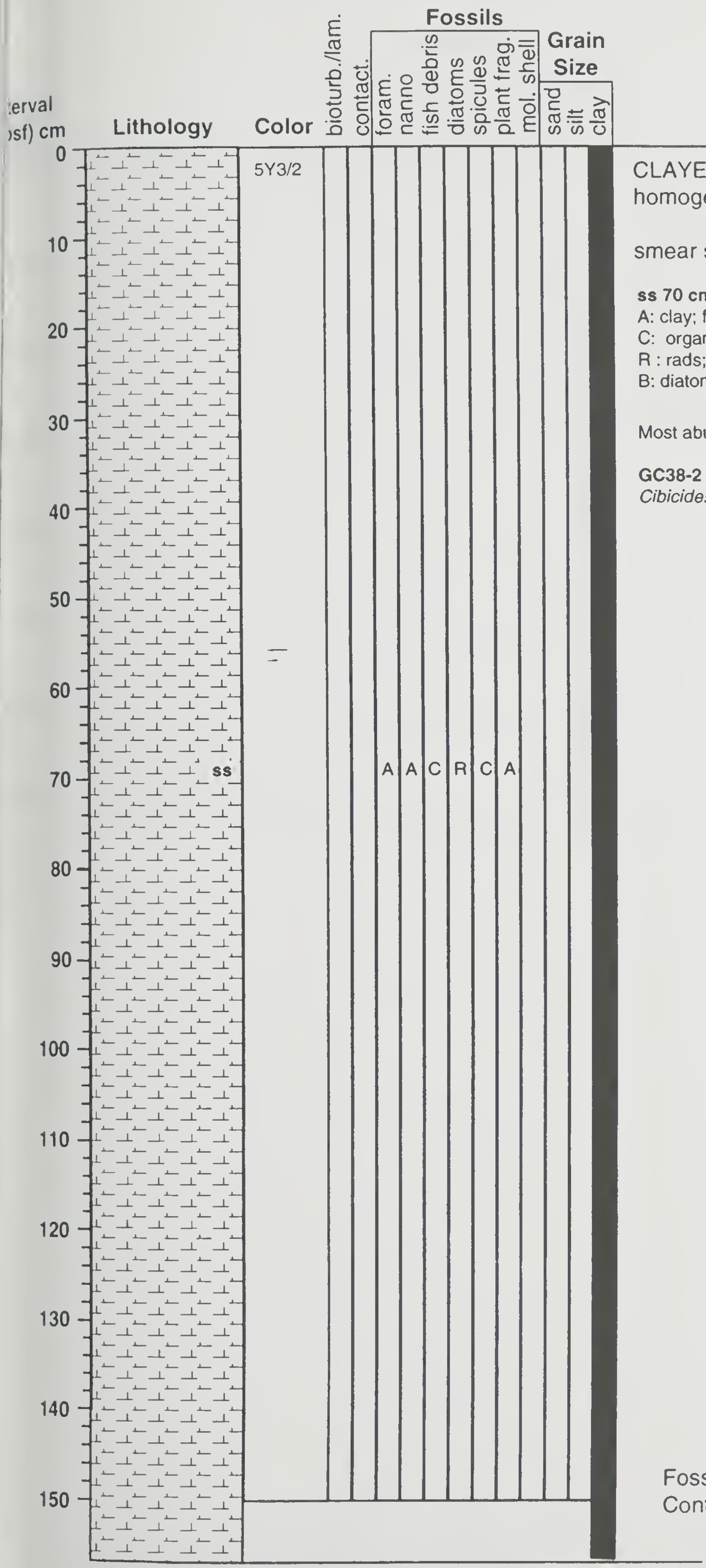
Remarks

CLAYEY NANNO-, FORAM-OOZE:
homogeneous olive gray, 5Y3/2

Fossils: A=Abundant C=Common R=Rare B=Barren
Contacts: S=Sharp G=gradational M=mottled

155 cm = bottom sect. 1; 308 cmbsf = base of core GC38

XMZ01MV Core: GC38 SECTION: 2 (0-153 cmbsf) Lat.:23 13.05 N Long.: 111 04.73 W
Water Depth: 1269 m



Remarks

CLAYEY NANNO-, FORAM-OOZE:
homogeneous olive gray, 5Y3/2

smear slides

ss 70 cm (dom. lith)
A: clay; forams; nannos; forams
C: organic matter; lithic grains; pyrite
R : rads; authigenic carbonate rhombs; sponge spic.
B: diatoms

Most abundant foraminifera

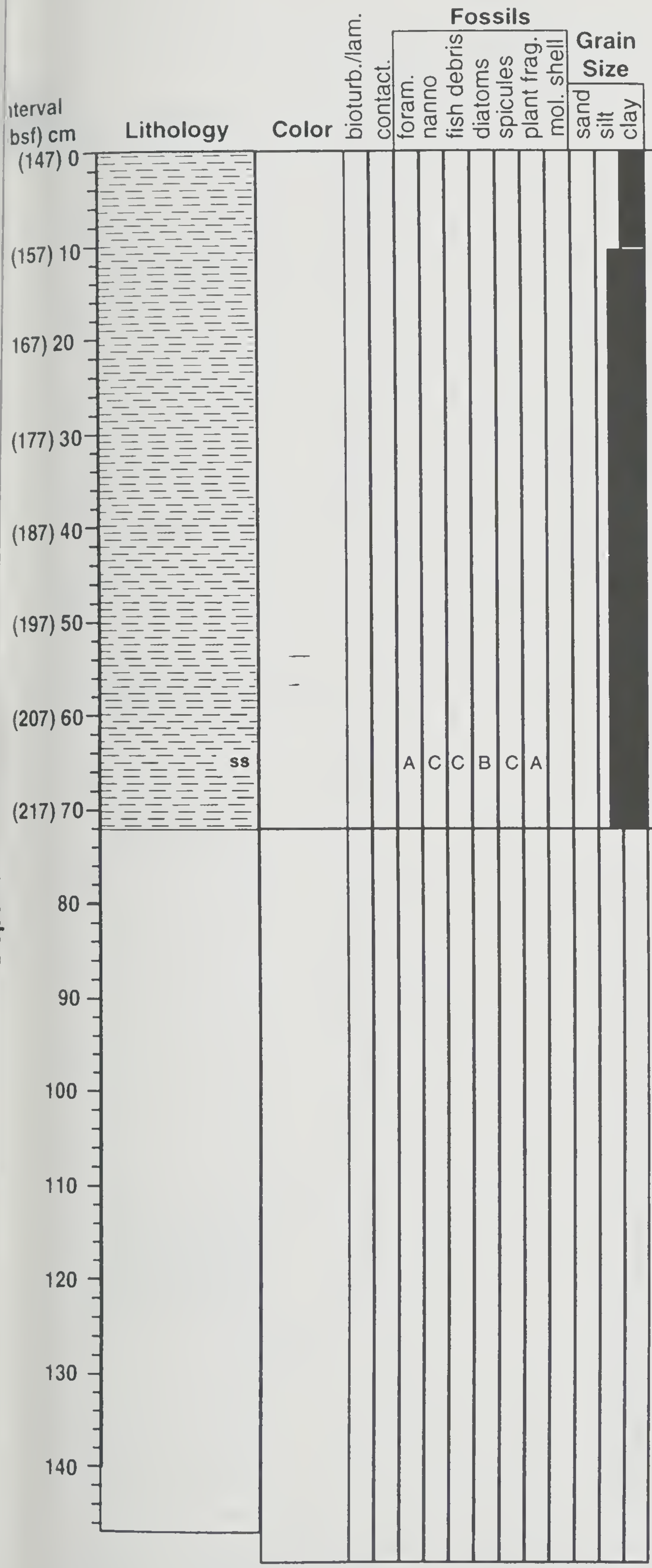
GC38-2 0-2 cm
Cibicides sp., Uvigerina sp., Cassidulina sp., Melonis sp., Bolivina spissa

Fossils: A=Abundant C=Common R=Rare B=Barren
Contacts: S=Sharp G=gradational M=mottled

153 cm = bottom sect. 2

XMZ01MV Core: GC39 Sect.: 1 (147-219 cmbsf) Lat.: 23 20.45 N Long.: 110 24.38 W

Water Depth: 544 m



CLAY (organic-rich; foram-, nanno-bearing):
0-11.5 cm: homogeneous olive black (5Y2/1) clay
11.5-72 cm: homogeneous clayey silt

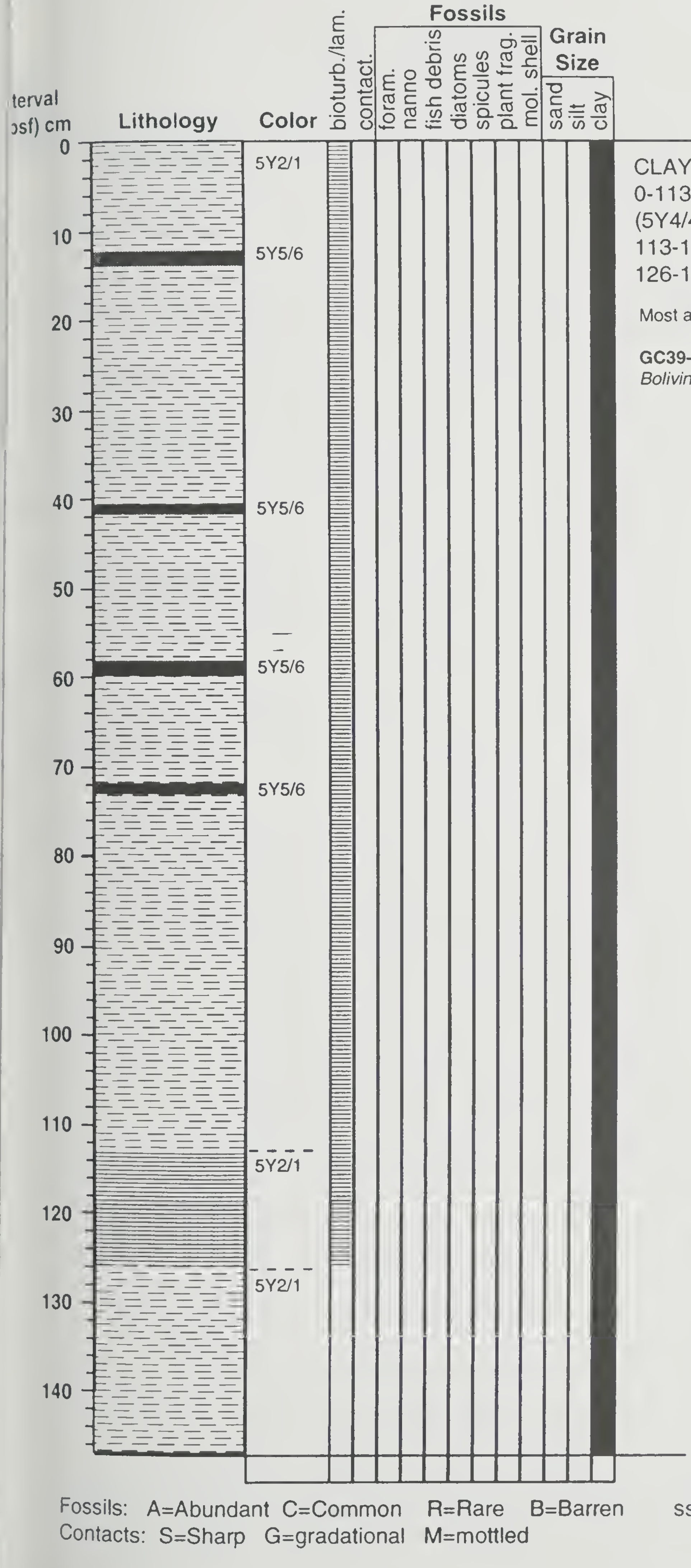
smear slides

ss 65 cm
A: clay; forams; lithic grains; organic matter
C: nannos; pyrite; sponge spic.
R: rads
B: diatoms

72 cm = bottom of section 1; 219 cmbsf = base of core GC39

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: GC39 Sect.: 2 (0-147 cmbsf) Lat.: 23 20.45 N Long.: 110 24.38 W
Water Depth: 544 m



Remarks

CLAY (organic-rich; foram-, nanno-bearing):
0-113 cm: finely banded, olive black (5Y2/1) to mod. ol. brow
(5Y4/4); several lt. ol. brown bands (5Y5/6) as indicated
113-126 cm: mm-scale laminations
126-147 cm: homogenous 5Y2/1

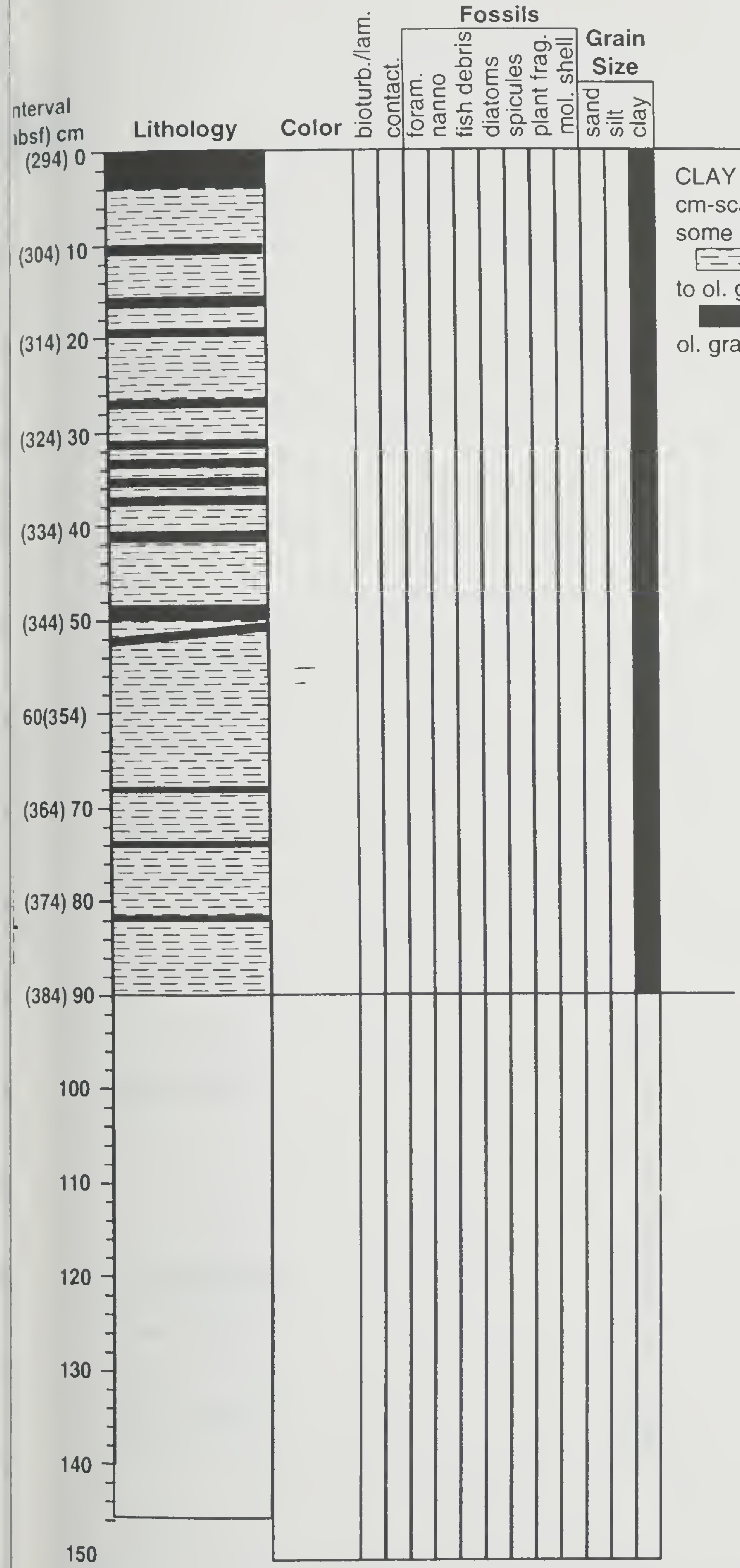
Most abundant foraminifera

GC39-2 0-2 cm
Bolivina sp., Uvigerina sp., Bolivina seminuda, Cassidulina sp

147 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: GC40 Sect.: 1 (294-384 cmbsf) Lat.: 23 38.02 N Long.: 111 48.0 W
Water Depth: 720 m



CLAY (organic-rich): basic stratigraphy is cm-scale interlayering of light and dark bands. There are some slight variations in color, but the basic colors are:

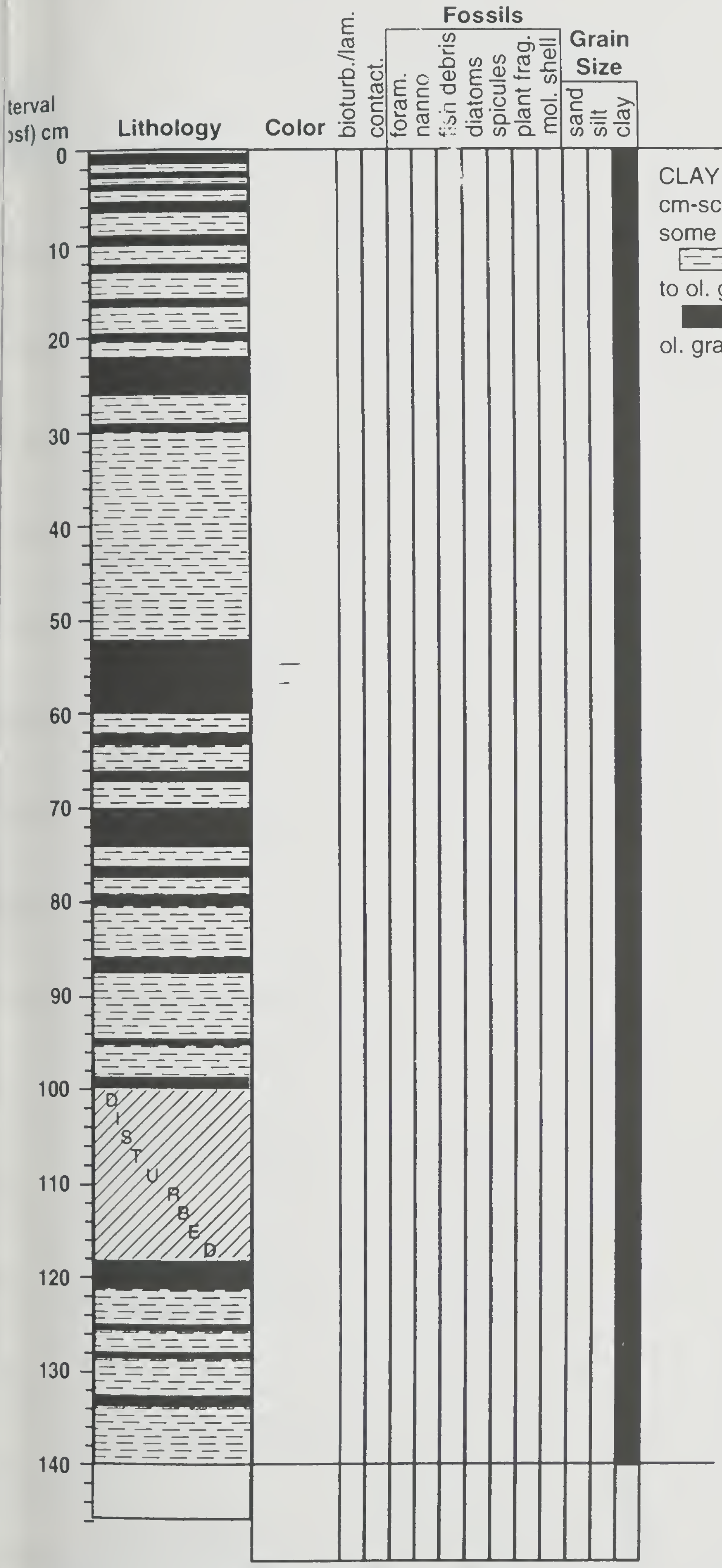
▤ light: (background) mod. ol. brown (5Y4/4) to ol. gray (5Y3/2)

■ dark: ol. black (5Y2/) where most dense, and ol. gray (5Y3/2) where more diffuse

90 cm = bottom of section 1; 384 cmbsf = base of core GC40

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: GC40 Sect.: 3 (0-144 cmbsf) Lat.: 23 38.02 N Long.: 111 48.0 W
Water Depth: 720 m



CLAY (organic-rich): basic stratigraphy is cm-scale interlayering of light and dark bands. There are some slight variations in color, but the basic colors are:

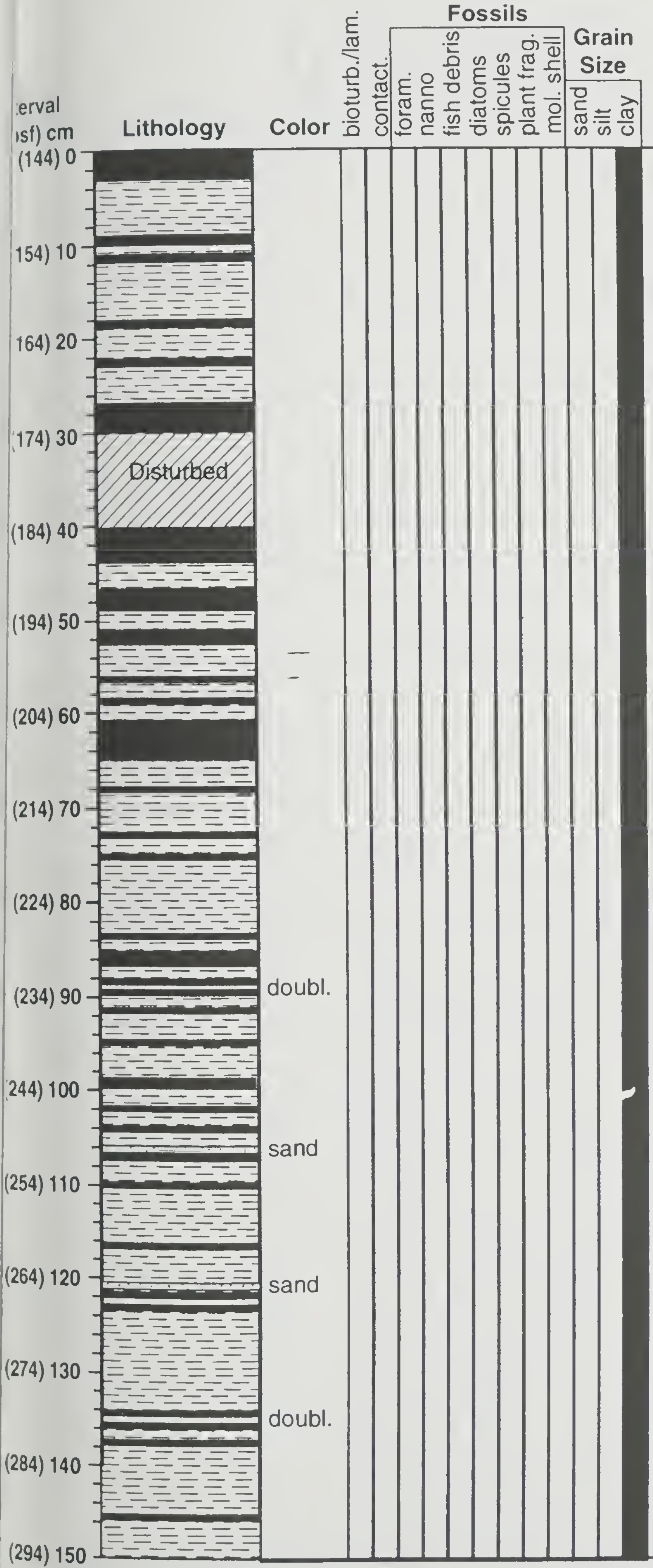
▤ light: (background) mod. ol. brown (5Y4/4) to ol. gray (5Y3/2)

■ dark: ol. black (5Y2/) where most dense, and ol. gray (5Y3/2) where more diffuse

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: GC40 Sect.: 2 (144-294 cmbsf) Lat.: 23 38.02 N Long.: 111 48.0 W

Water Depth: 720 m



Remarks

CLAY (organic-rich): basic stratigraphy is cm-scale interlayering of light and dark bands. There are some slight variations in color, but the basic colors are:

▤ light: (background) mod. ol. brown (5Y4/4) to ol. gray (5Y3/2)

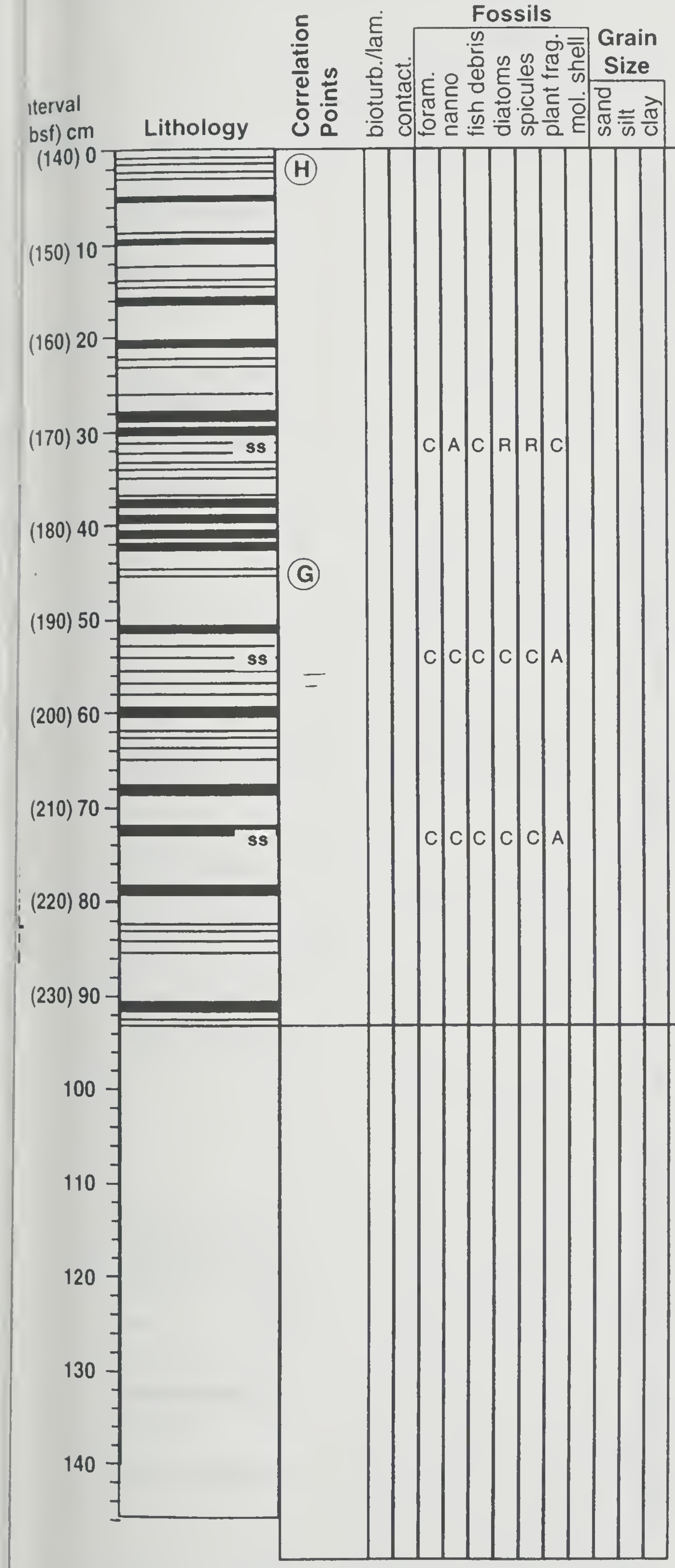
■ dark: ol. black (5Y2/) where most dense, and ol. gray (5Y3/2) where more diffuse

150 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: GC41 Sect.: 1 (140-233 cmbsf) Lat.: 25 12.0 N Long.: 112 43 W
Water Depth: 542 m



Remarks

CLAY (organic-rich; dark) and CLAY (nanno-bearing light) Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale lamina. The basic colors are:

light: (background) mod. ol. brown (5Y4/4) to ol. gray (5Y3/2) ☐

dark: ol. black (5Y2/1) bands of multi-laminae ■ and individual laminae —

smear slides

ss 32 cm (light)
A: clay; nannos
C: forams;organic matter; lithic grains; pyrite; fish debris;
R : diatoms (*Actinophychus*; fragmenbts); rads; sponge spic.; silicoflag.

ss 55 cm (dark)
A: clay; organic matter
C: nannos; forams; pyrite; fish debris; sponge spic.; diatoms (*Chaetoceros* spores; fragments; girdle bands)
R : rads

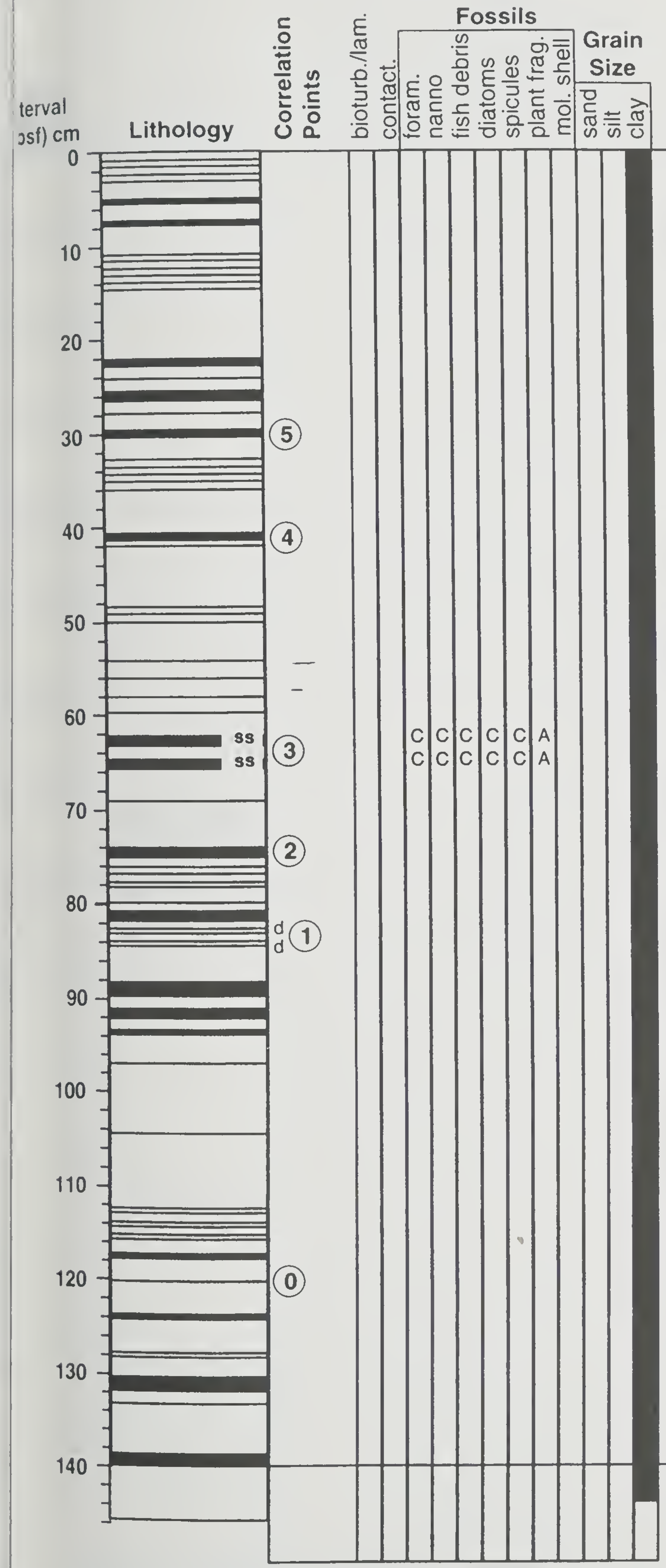
ss 74 cm (white)
A: clay; nannos
C: organic debris; pyrite

(nannofossil ooze)

93 cm = bottom of section 1; 233 cmbsf = base of core GC41

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: GC41 Sect.: 2 (0-140 cmbsf) Lat.: 25 12.0 N Long.: 112 43 W
Water Depth: 542 m



CLAY (organic-rich; dark) and CLAY (nanno-bearing light): Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:

light: (background) mod. ol. brown (5Y4/4) to ol. gray (5Y3/2) ☐

dark: ol. black (5Y2/1) bands of multi-laminae ■ and individual laminae —

smear slides

ss 62 cm (dark)
A: clay; organic matter
C: nannos; forams; pyrite; fish debris; sponge spic.; diatoms
R : rads

ss 63 cm (light)
A: clay; organic matter
C: nannos; forams; pyrite; fish debris; sponge spic.; diatoms
R : rads

Most abundant foraminifera

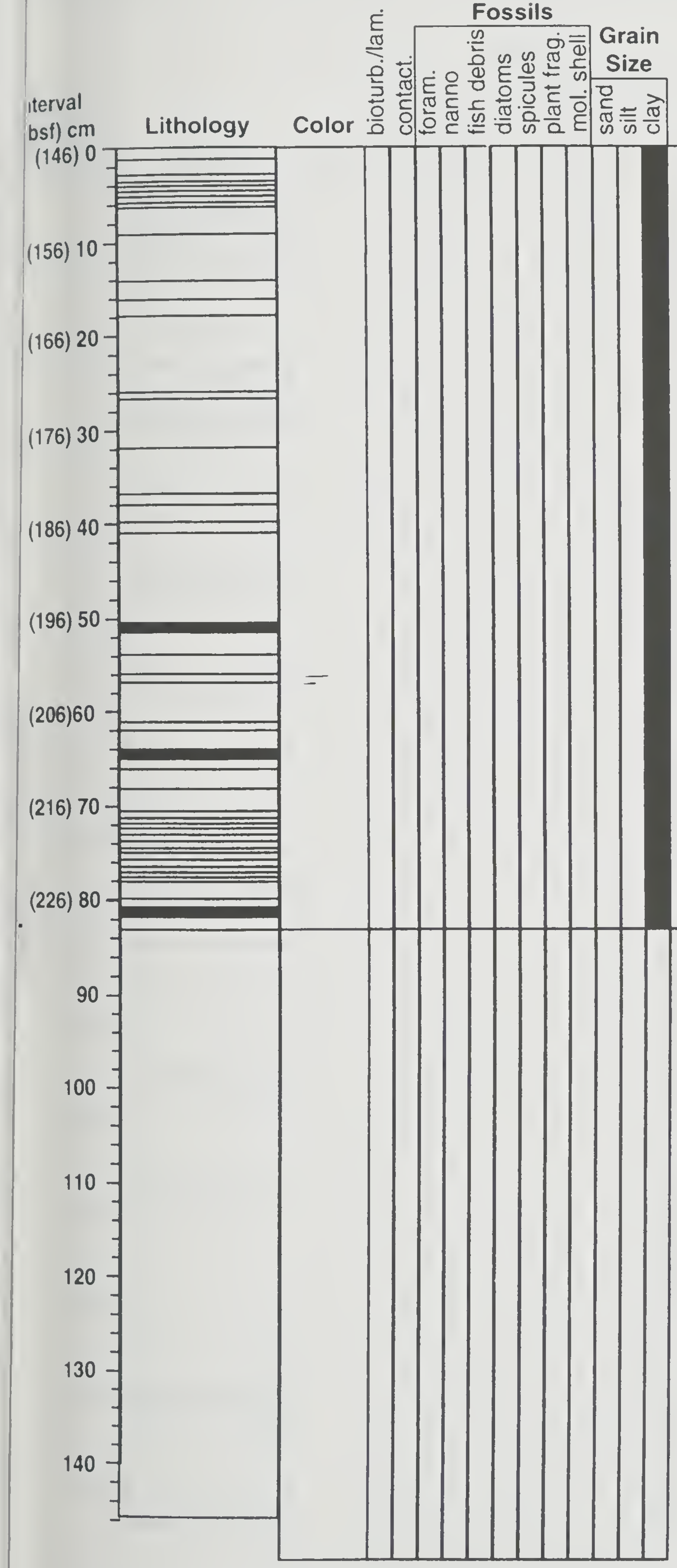
GC41-2 0-2 cm
Bolivina seminuda, Bolivina tenuata

d
d double "doublets = 75 cm in GC42-2

140 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: GC42 Sect.: 1 (146-229 cmbsf) Lat.: 25 12.0 N Long.: 112 44.5 W
Water Depth: 532 m



Remarks

CLAY (organic-rich; dark) and CLAY (nanno-bearing light): Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:

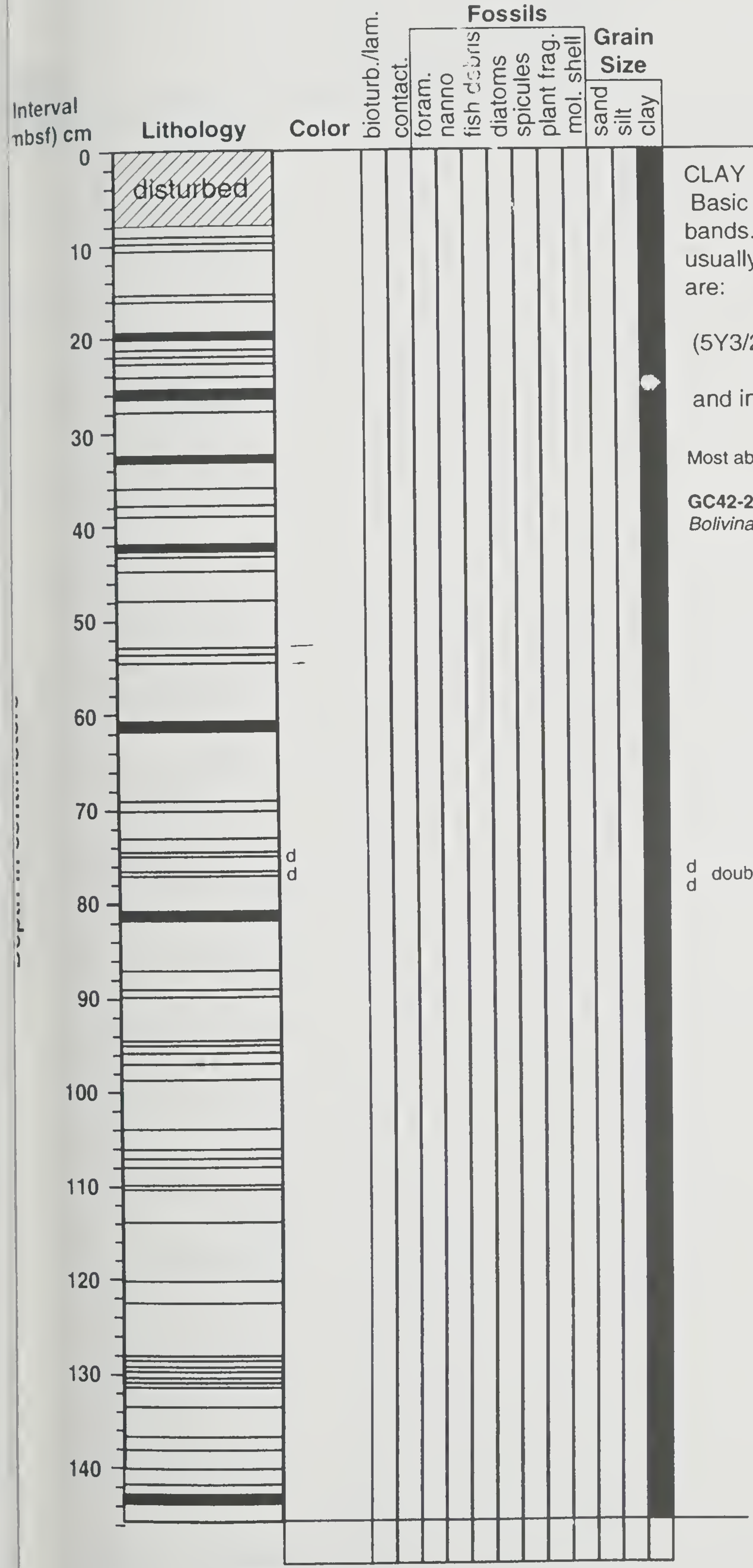
light: (background) mod. ol. brown (5Y4/4) to ol. gray (5Y3/2) ☐

dark: ol. black (5Y2/1) bands of multi-laminae ■ and individual laminae —

83 cm = bottom of section 1;
229 cmbsf = base of core 42

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC42 Sect.: 2 (0-146 cmbsf) Lat.: 25 12.0 N Long.: 112 44.5 W
Water Depth: 532 m



Remarks

CLAY (organic-rich; dark) and CLAY (nanno-bearing light): Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:

light: (background) mod. ol. brown (5Y4/4) to ol. gray (5Y3/2) ☐

dark: ol. black (5Y2/1) bands of multi-laminae ■ and individual laminae ——

Most abundant foraminifera

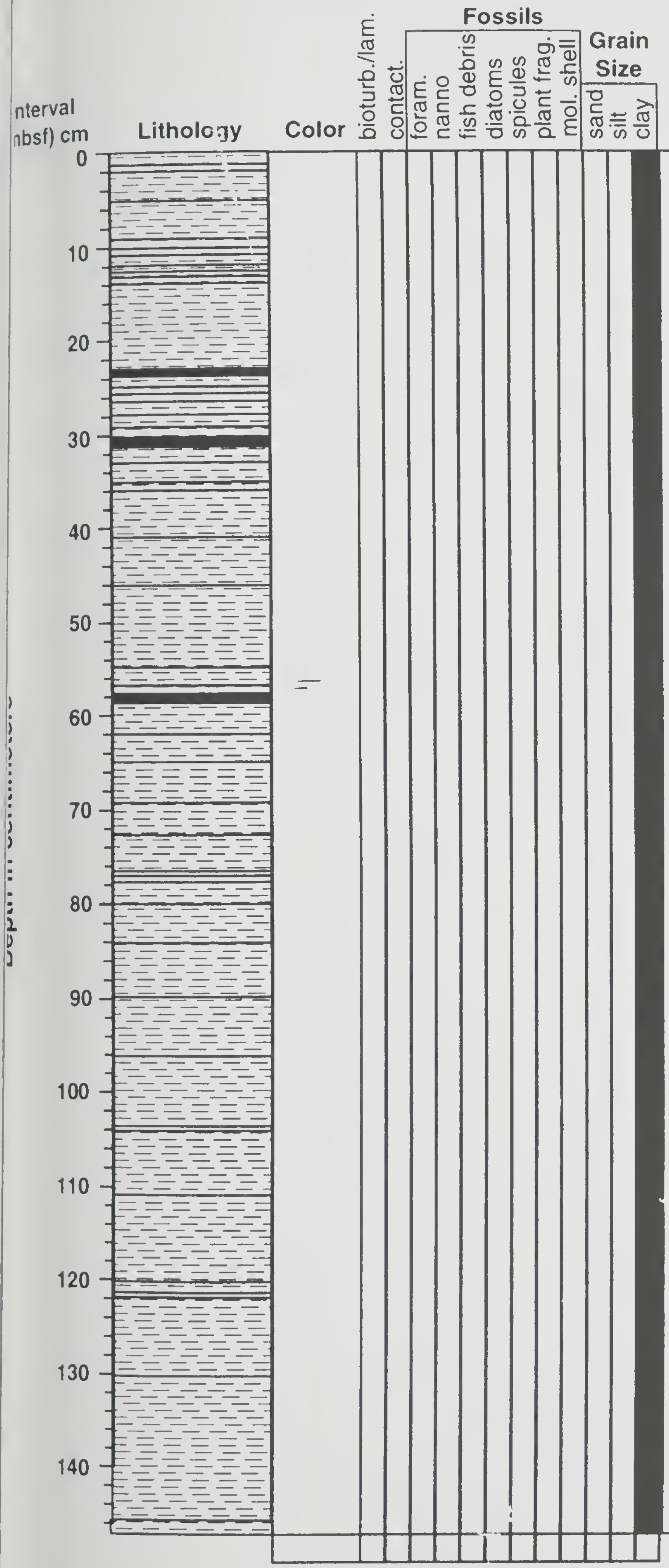
GC42-2 0-2 cm
Bolivina seminuda, Bolivina tenuata

d
d double "doublets = 85 cm in GC41-2

146 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC43 Sect.: 2 (0-147 cmbsf) Lat.: 25 10.5 N Long.: 112 45 W
Water Depth: 501 m



Remarks

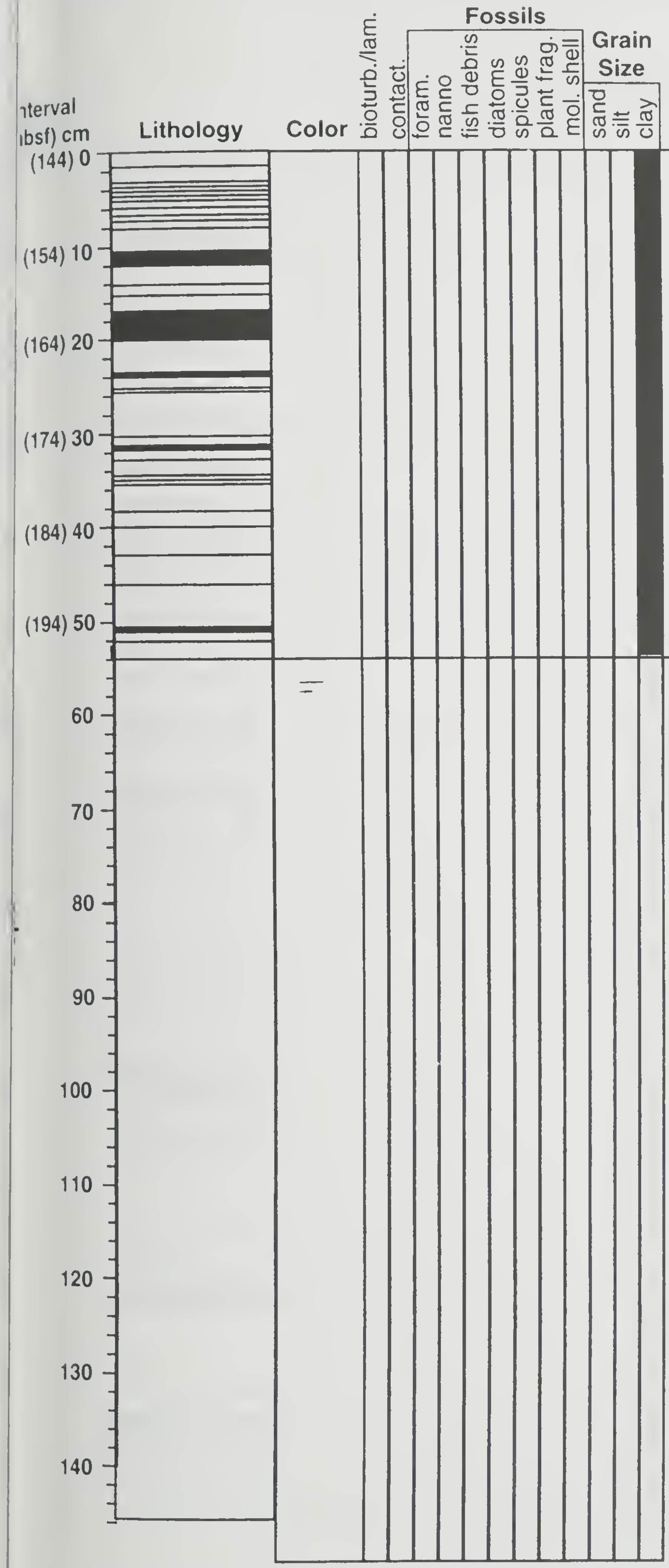
CLAY (organic-rich;dark) and CLAY (nanno-bearing light): Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:

light: (background) ol. gray (5Y3/2) ☐
dark: ol. black (5Y2/1) bands of multi-laminae ■
individual laminae ——

147 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: GC44 Sect.: 1 (144-198 cmbsf) Lat.: 25 10 N Long.: 112 41 W
Water Depth: 532 m



Remarks

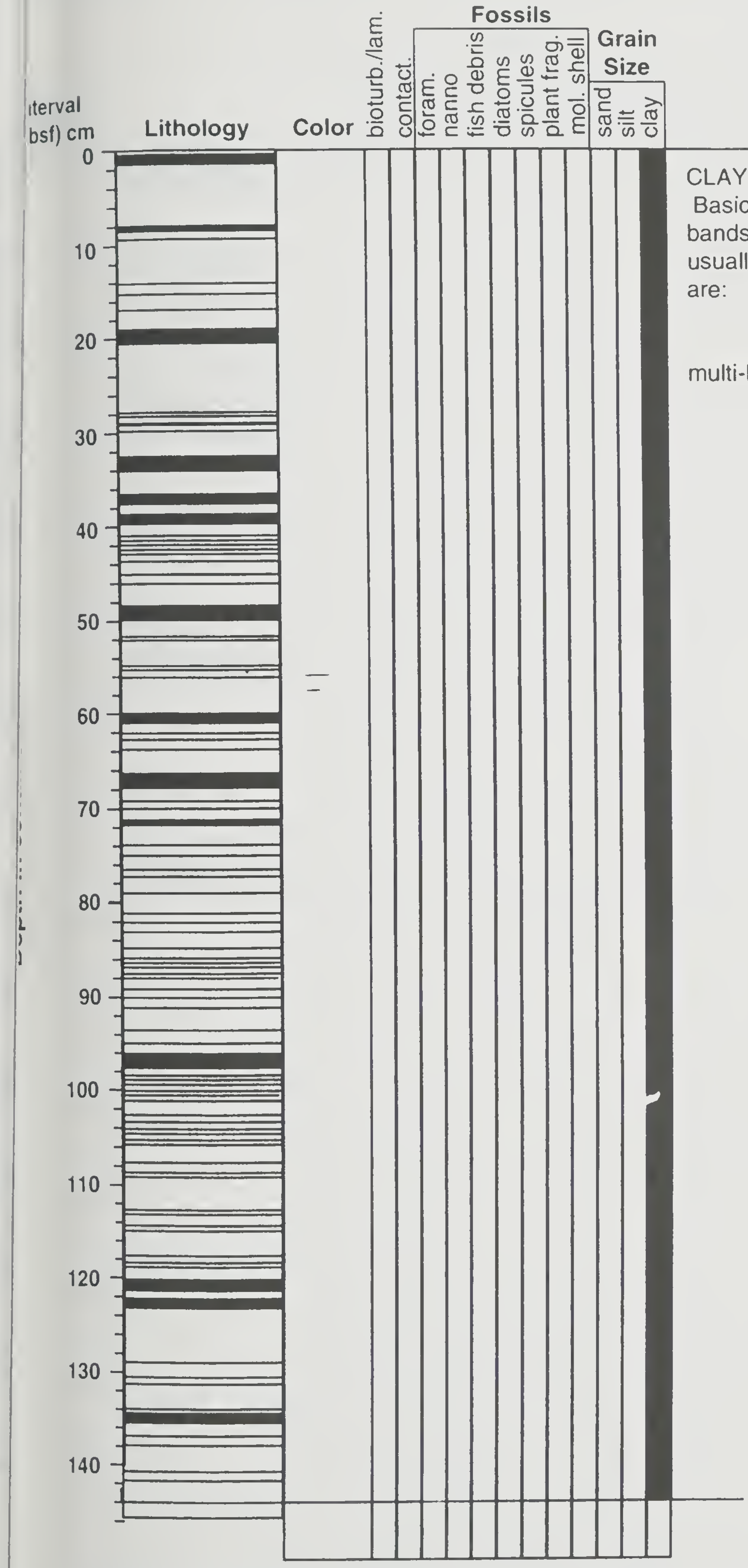
CLAY (organic-rich; dark) and CLAY (nanno-bearing light): Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:

light: (background) dark yel. brown (10YR4/2) ☐
dark: brownish black (5YR2/1) = bands of multi-laminae ■ and individual laminae —

54 cm = bottom of section 1; 198 cmbsf = base of core GC44

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: GC44 Sect.: 2 (0-144 cmbsf) Lat.: 25 10 N Long.: 112 41 W
Water Depth: 532 m



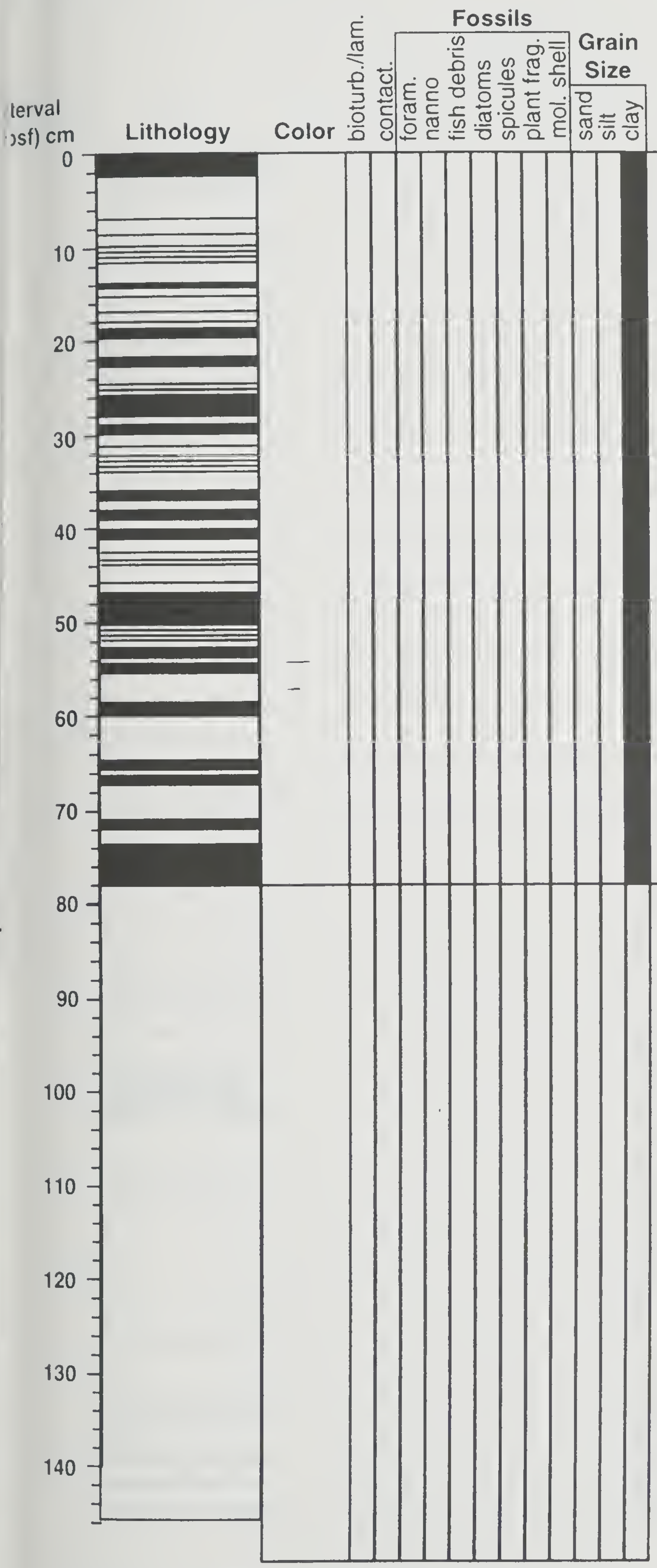
Remarks

CLAY (organic-rich dark) and CLAY (nanno-bearing light): Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:

light: (background) dark yel. brown (10YR4/2) ☐
dark: brownish black (5YR2/1) = bands of multi-laminae ■ and individual laminae —

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: GC45 Sect.: 1 (146-224 cmbsf) Lat.: 25 12.5 N Long.: 112 41 W
Water Depth: 494 m



Remarks

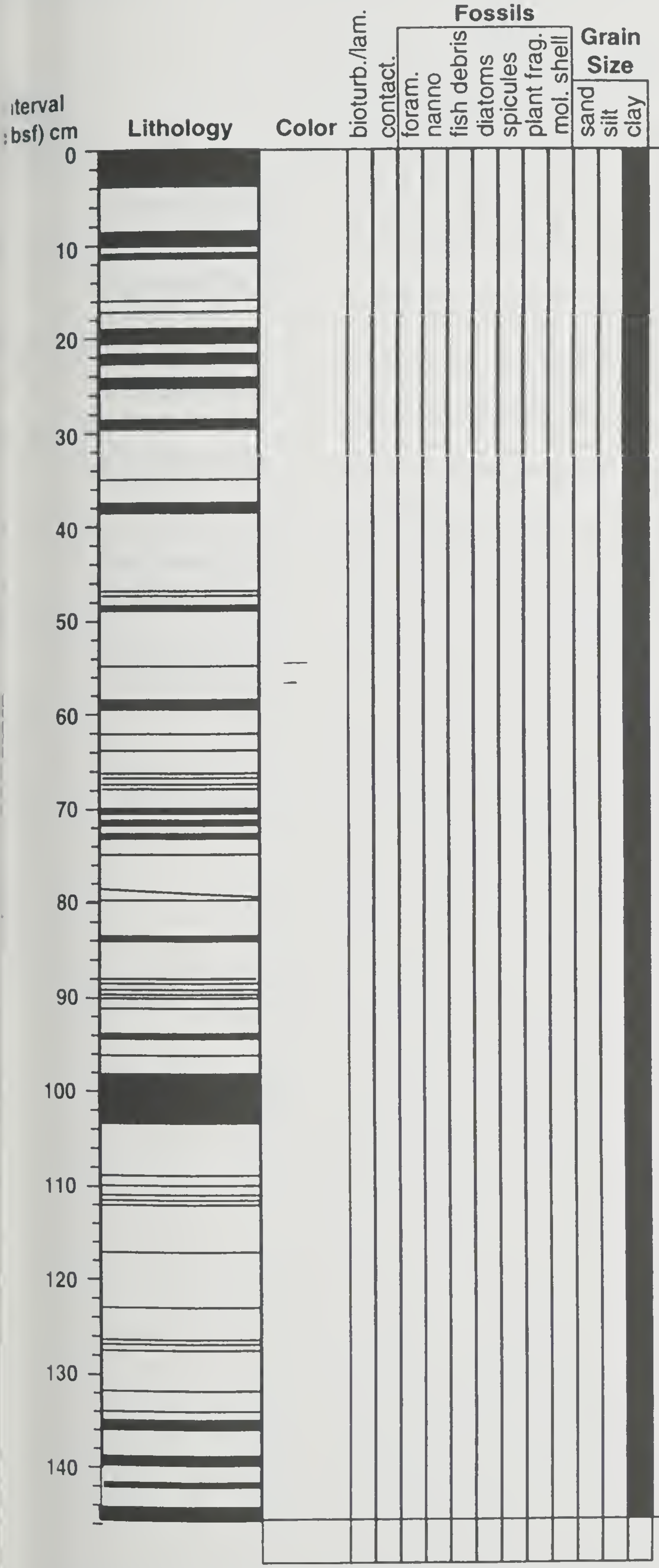
CLAY (organic-rich dark) and CLAY (nanno-bearing light): Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:

light: (background) dark yel. brown (10YR4/2) ☐
dark: brownish black (5YR2/1) = bands of multi-laminae ■ and individual laminae —

78 cm = bottom of section 1; 224 cnbsf = base of core GC45

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: GC45 Sect.: 2 (0-146 cmbsf) Lat.: 25 12.5 N Long.: 112 41 W
Water Depth: 494 m



Remarks

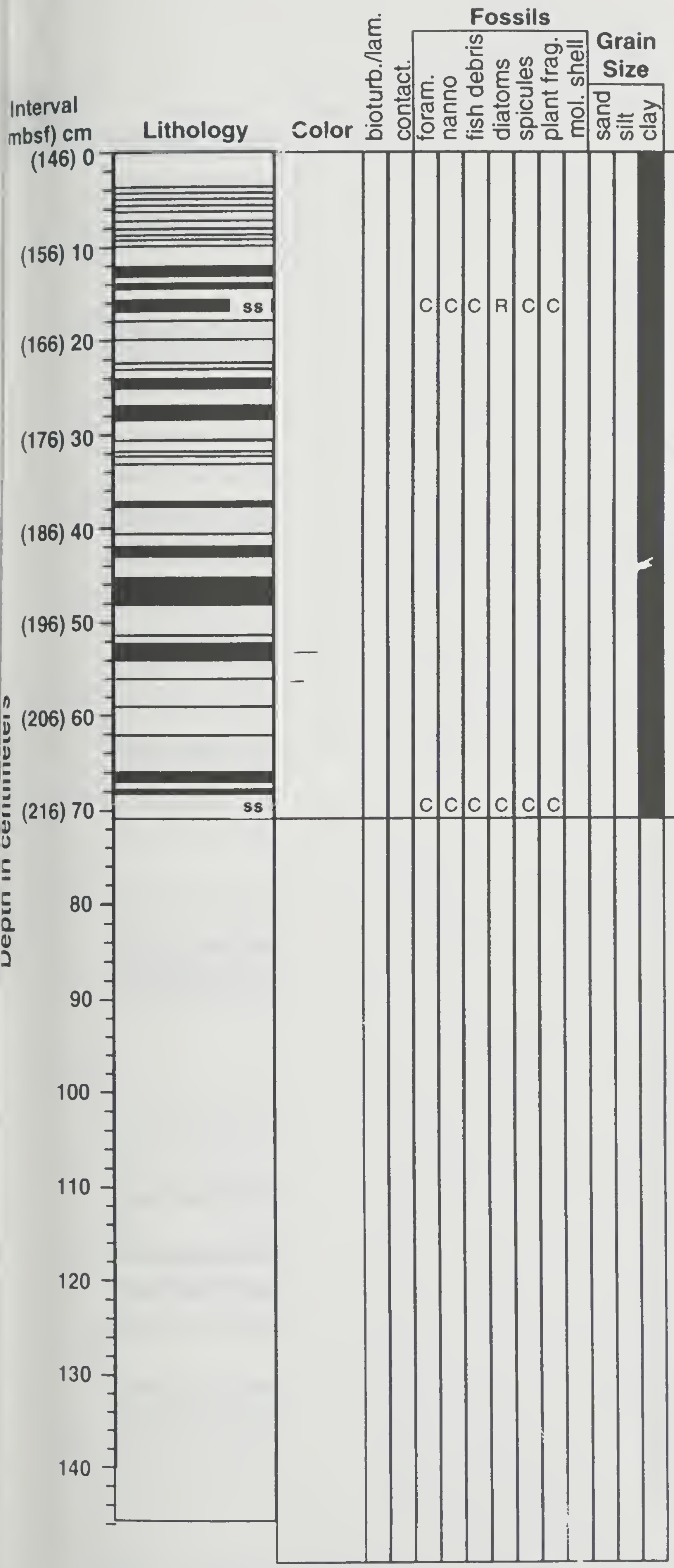
CLAY (organic-rich dark) and CLAY (nanno-bearing light): Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:

light: (background) dark yel. brown (10YR4/2) □
dark: brownish black (5YR2/1) = bands of multi-laminae ■ and individual laminae —

146 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC46 Sect.: 1 (146-217 cmbsf) Lat.: 25 09.69 N Long.: 112 45.79 W
Water Depth: 439 m



Remarks

CLAY (organic-rich dark) and CLAY (nanno-bearing light): Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:

light: (background) dark yel. brown (10YR4/2) ☐

dark: brownish black (5YR2/1) = bands of multi-laminae ■ and individual laminae —

smear slides

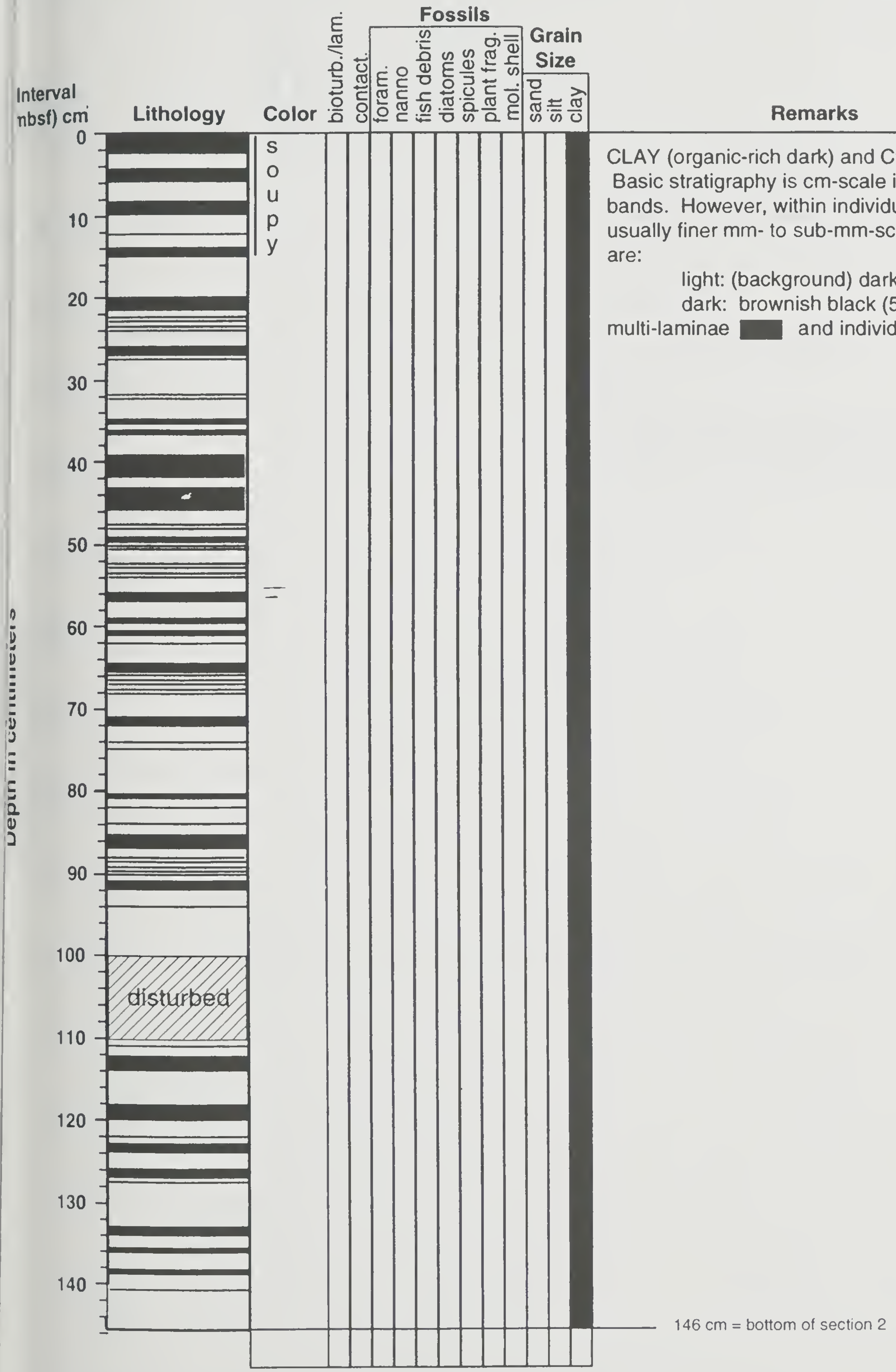
ss 17 cm (light)
A: clay
C: nannos; forams; organic matter; pyrite; fish debris; sponge spic.
R : diatoms; rads

ss 69 cm (dark)
A: clay; organic matter
C: nannos; forams; pyrite; fish debris; sponge spic.; diatoms
R : rads

71 cm = bottom of section 1; 217 cmbsf = base of core GC46

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC46 Sect.: 2 (0-146 cmbsf) Lat.: 25 09.69 N Long.: 112 45.79 W
Water Depth: 439 m



Remarks

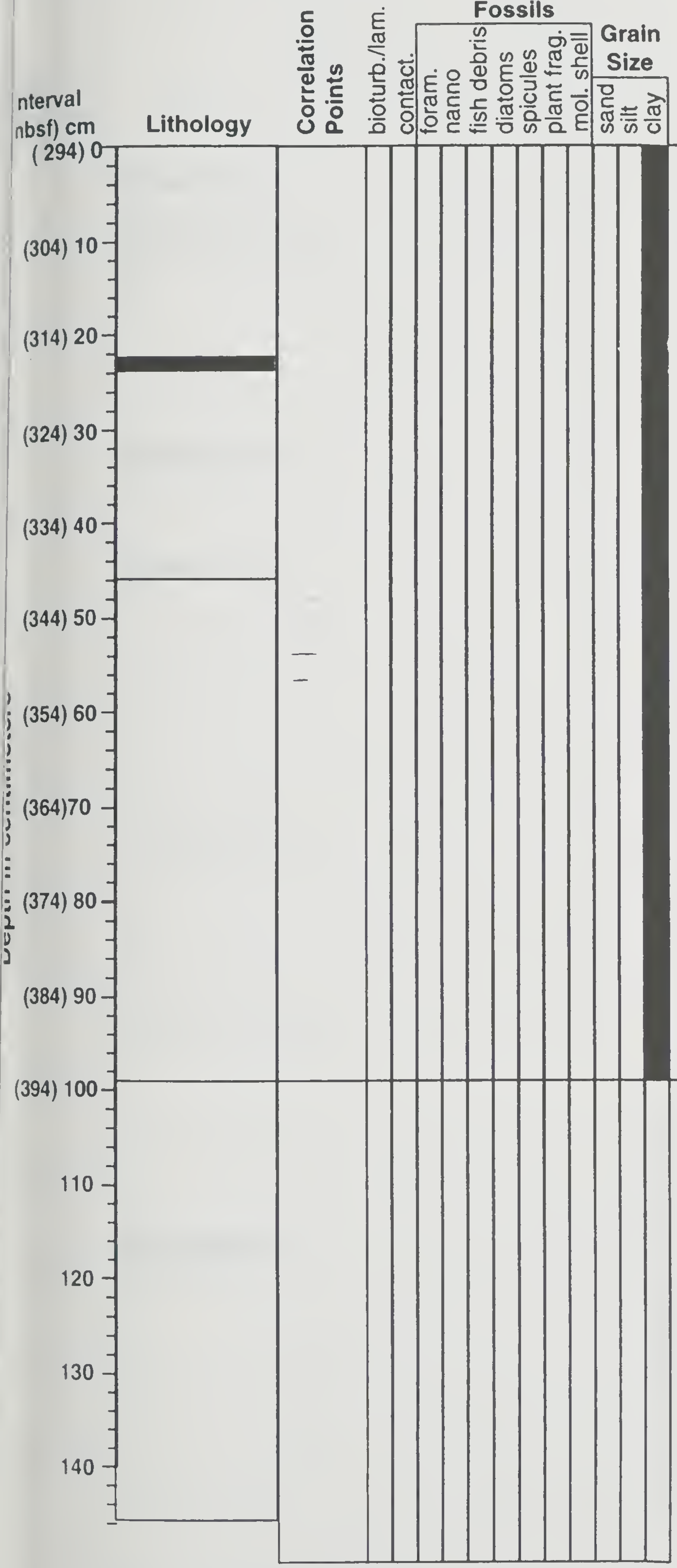
CLAY (organic-rich dark) and CLAY (nanno-bearing light): Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:

light: (background) dark yel. brown (10YR4/2) ☐
dark: brownish black (5YR2/1) = bands of multi-laminae ■ and individual laminae —

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC48 Sect.: 1 (294-393 cmbsf) Lat.: 25 12.01 N Long.: 112 43.01 W

Water Depth: 540 m



Remarks

CLAY (organic-rich; dark) and CLAY (nanno-bearing light): Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:

light: (background) mod. ol. brown (5Y4/4) to ol. gray (5Y3/2) ☐

dark: ol. black (5Y2/1) bands of multi-laminae ■ and individual laminae —

Note:

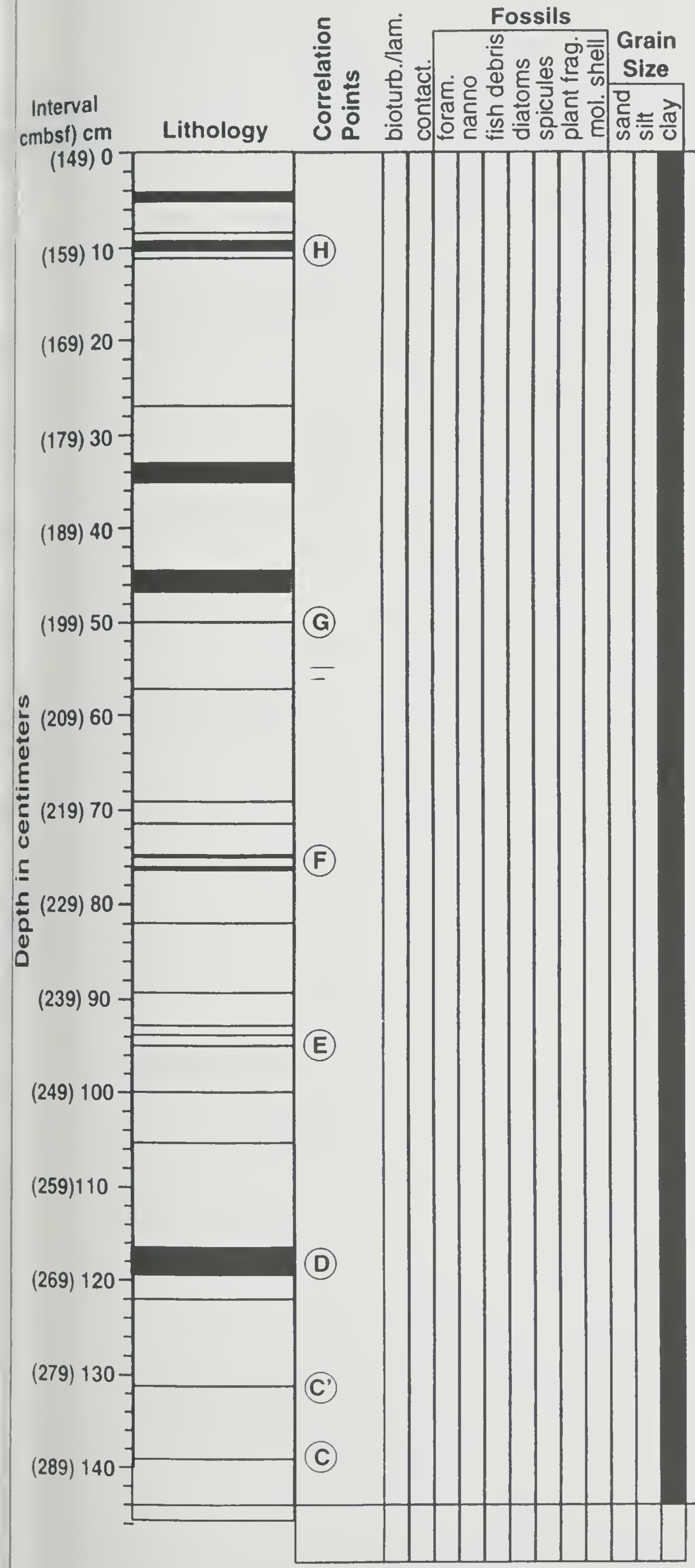
Only the most distinctive laminae or groups of laminae ("bands") for correlation purposes are indicated.

99 cm = bottom of section 1; 393 cmbsf = base of core GC48

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: GC48 Sect.: 2 (149-294 cmbsf) Lat.: 25 12.01 N Long.: 112 43.01 W
Water Depth: 540 m



Remarks

CLAY (organic-rich; dark) and CLAY (nanno-bearing light): Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:

light: (background) mod. ol. brown (5Y4/4) to ol. gray (5Y3/2) ☐

dark: ol. black (5Y2/1) bands of multi-laminae ■ and individual laminae —

Note:
Only the most distinctive laminae or groups of laminae ("bands") for correlation purposes are indicated.

between S. 1 and S 2

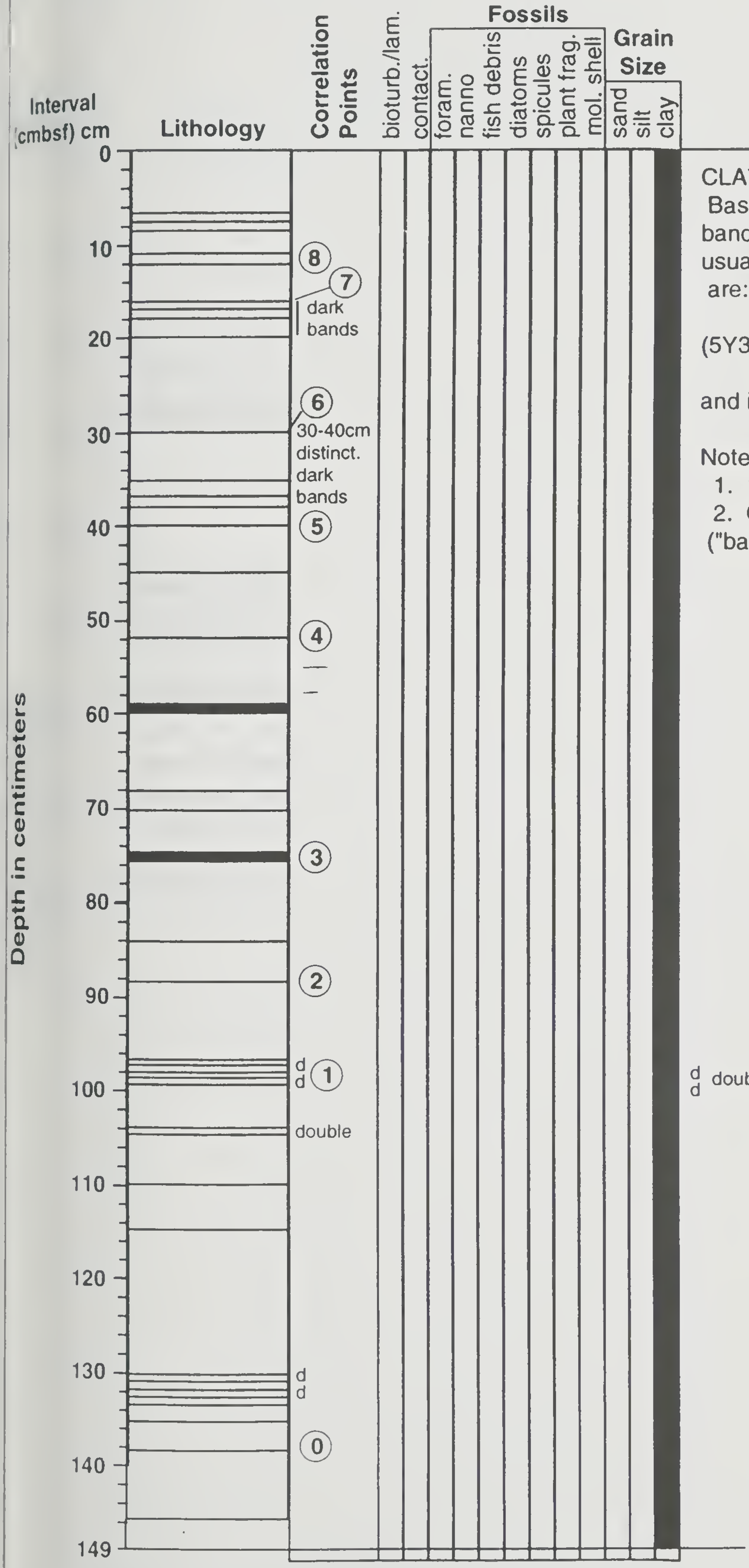
■ | 1 cm = add to bottom of section 2

144 cm = bottom of section 2; 293 cmbsf + 1 cm = 294 cmbsf

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC48 Sect.: 3 (0-149 cmbsf) Lat.: 25 12.01 N Long.: 112 43.01 W

Water Depth: 540 m



Remarks

CLAY (organic-rich; dark) and CLAY (nanno-bearing light): Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:

light: (background) mod. ol. brown (5Y4/4) to ol. gray (5Y3/2) ▭

dark: ol. black (5Y2/1) bands of multi-laminae ■ and individual laminae —

Note:

1. 10-cm markers in core slabs are low by 1-cm
2. Only the most distinctive laminae or groups of laminae ("bands") for correlation purposes are indicated.

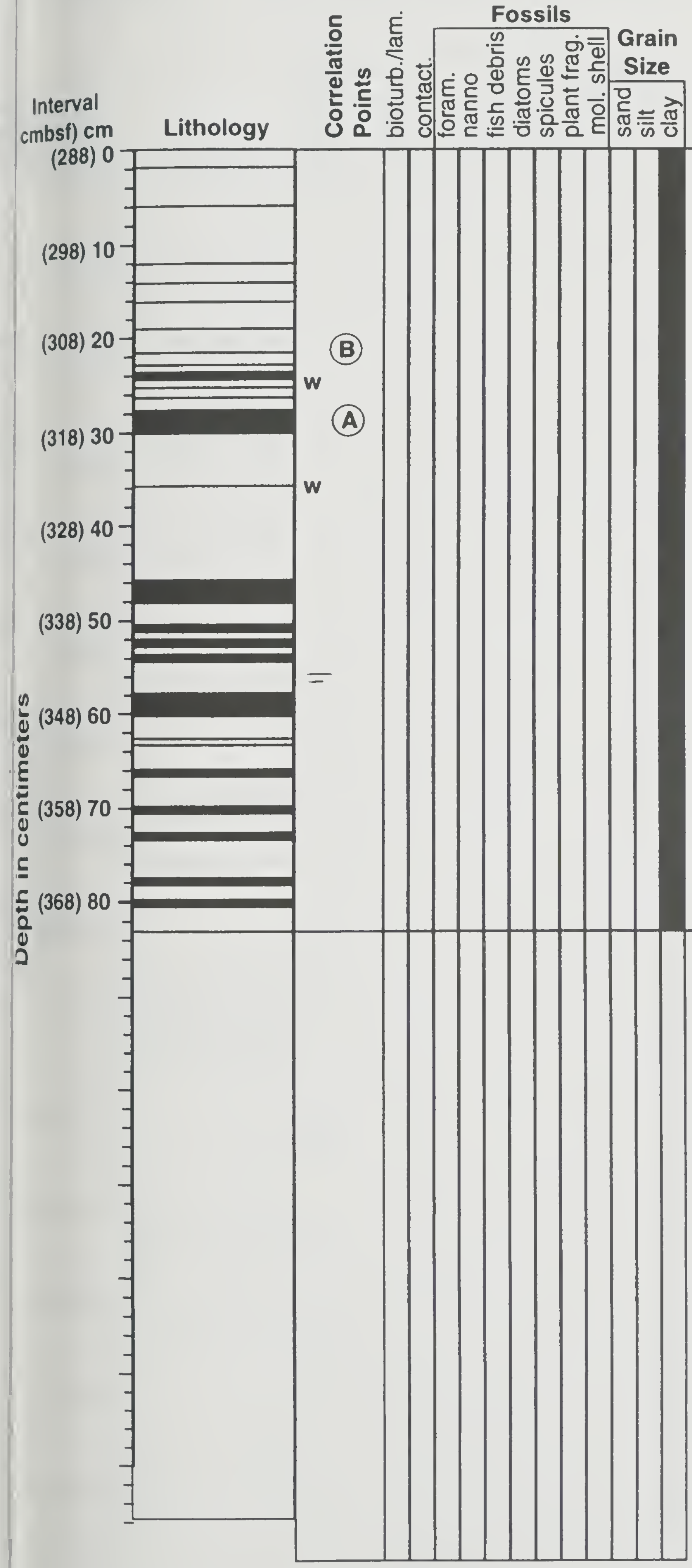
d
d double "doublet" = 75 cm i n GC42-2

149 cm = bottom of section 3

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC50 Sect.: 1 (288-371 cmbsf) Lat.: 25 09.72 N Long.: 112 45.80 W
Water Depth: 440 m



Remarks

CLAY (organic-rich; dark) and CLAY (nanno-bearing light): Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:

light: (background) ol. brown (5Y4/4) to dk. yel. brown (5YR3/2) ☐

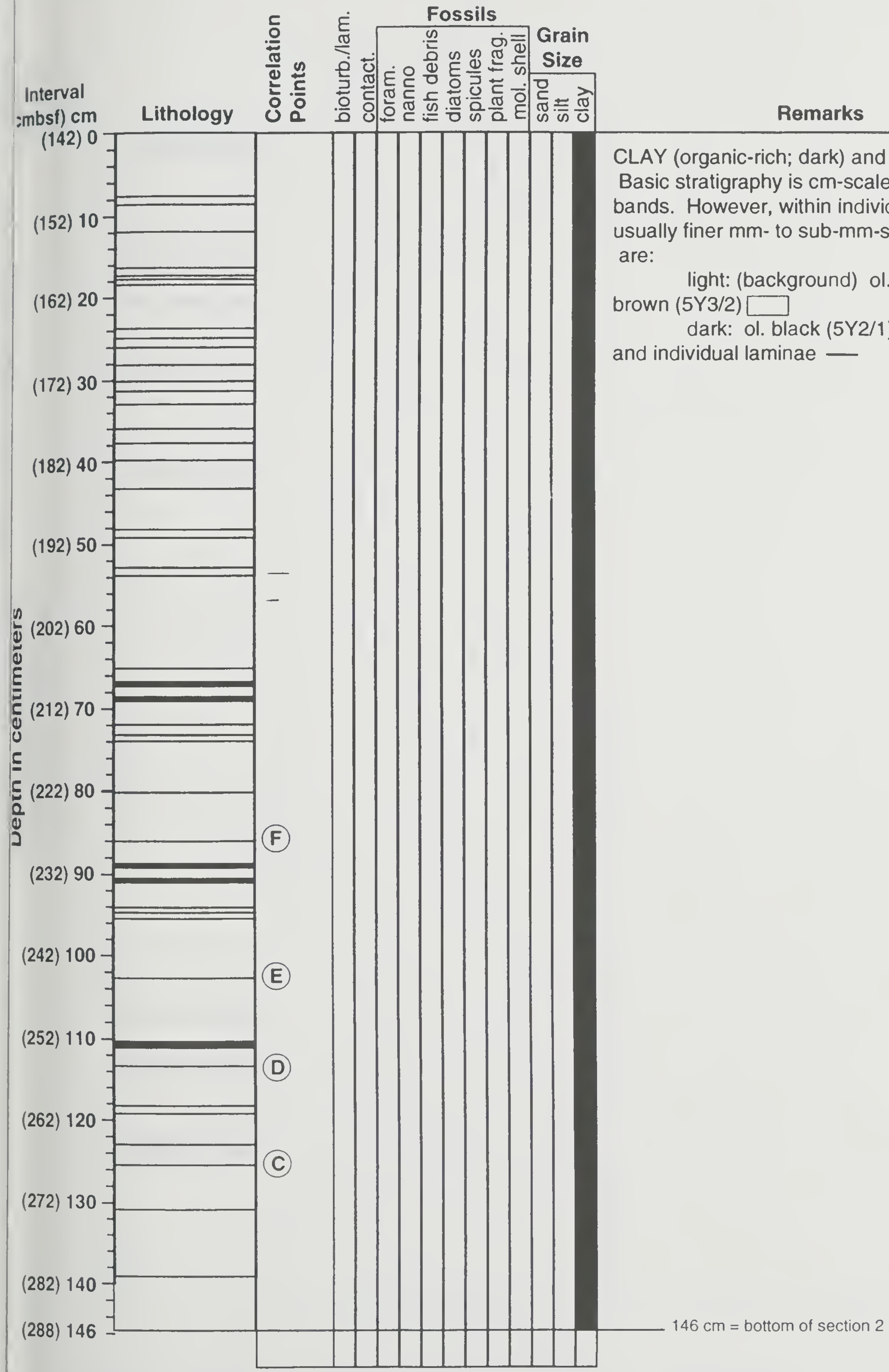
dark: ol. black (5Y2/1) bands of multit-laminae ■ and individual laminae —

white laminae = nannfossil ooze — w

83 cm = bottom of section ; 371 cmbsf = base of core GC50

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC50 Sect.: 2 (142-288 cmbsf) Lat.: 25 09.72 N Long.: 112 45.80 W
Water Depth: 440 m



Remarks

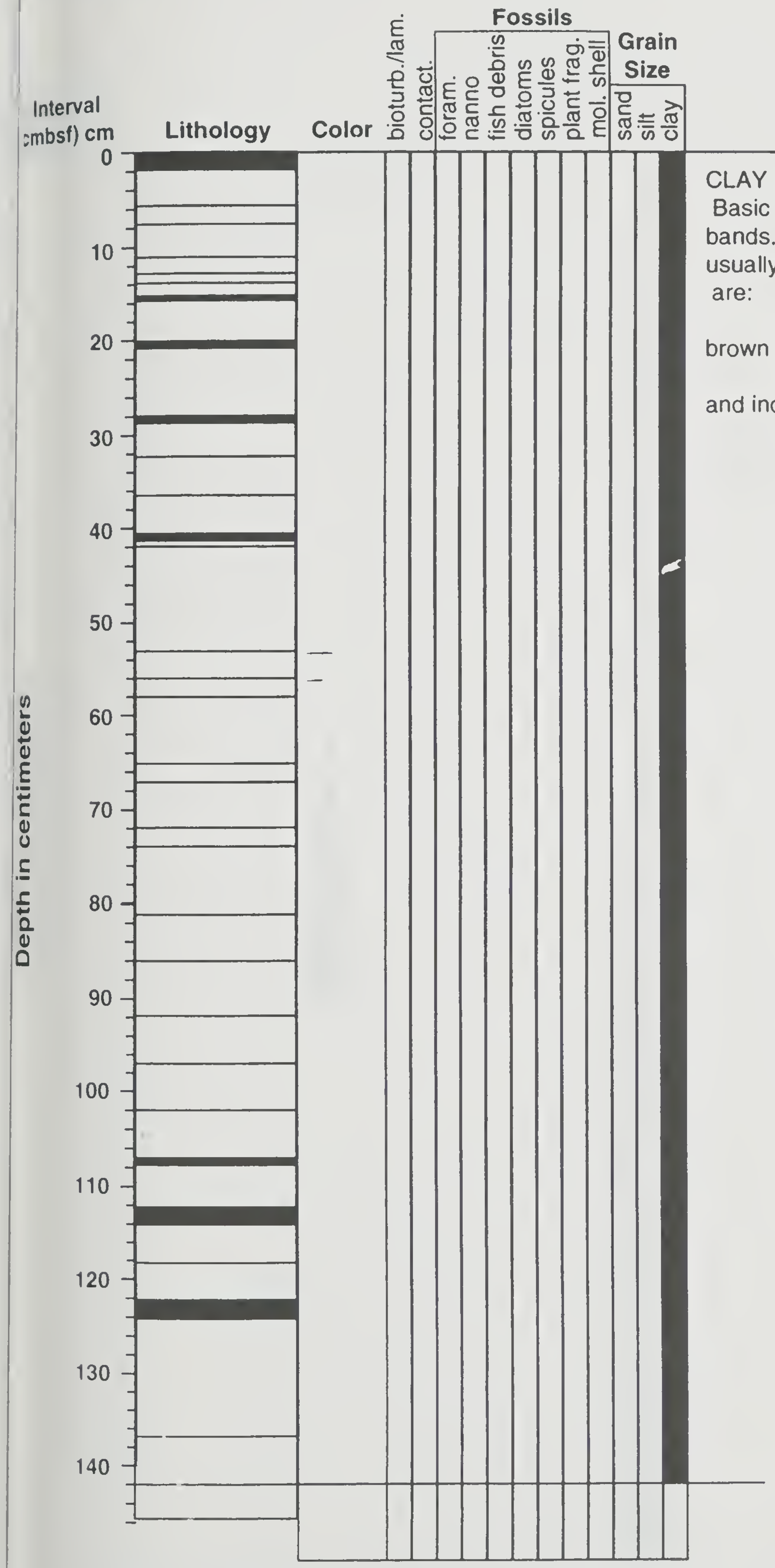
CLAY (organic-rich; dark) and CLAY (nanno-bearing light): Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:

light: (background) ol. brown (5Y4/4) to dk. yel. brown (5Y3/2) ☐

dark: ol. black (5Y2/1) bands of multit-laminae ■ and individual laminae —

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC50 Sect.: 3 (0-142 cmbsf) Lat.: 25 09.72 N Long.: 112 45.80 W
Water Depth: 440 m



Remarks

CLAY (organic-rich; dark) and CLAY (nanno-bearing light): Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:

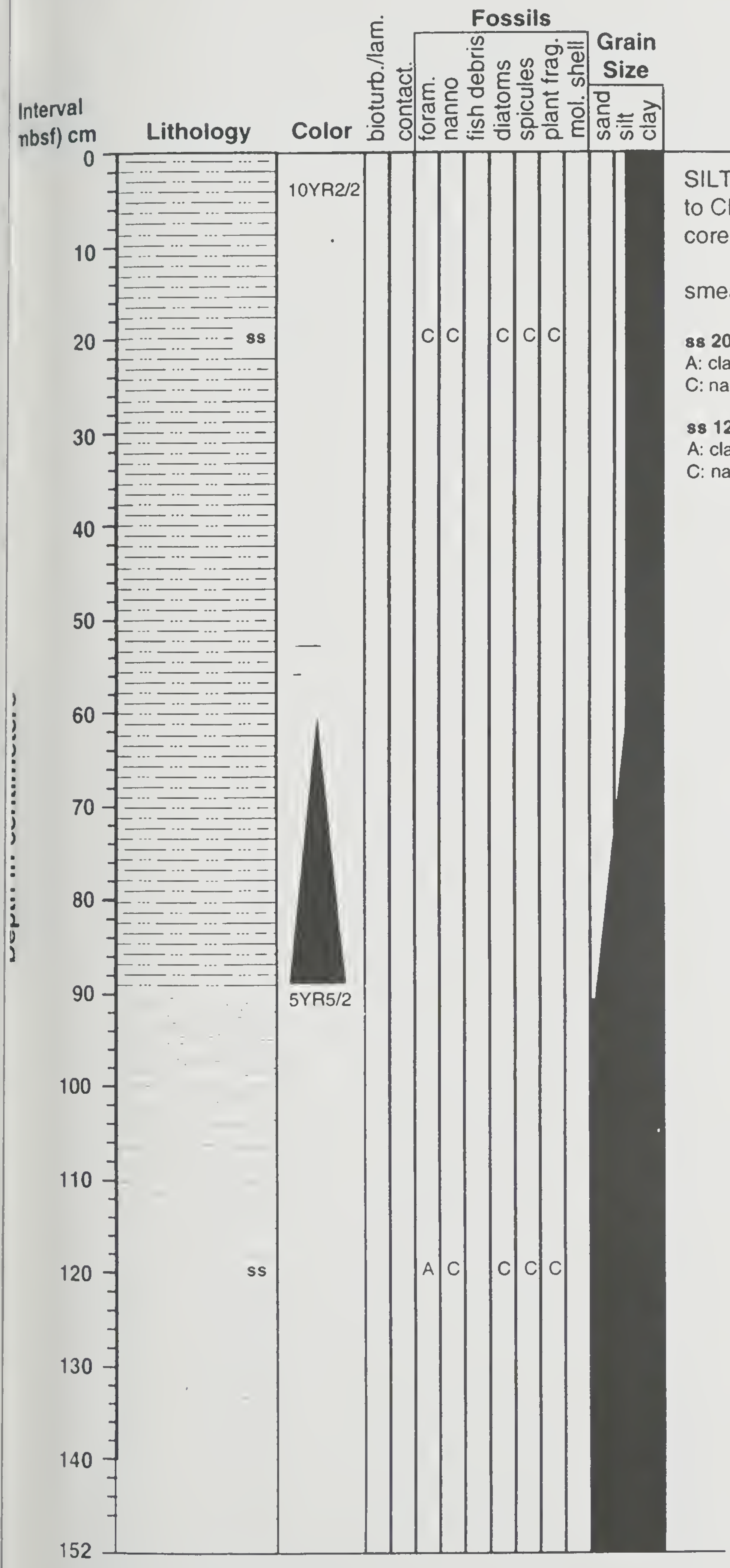
light: (background) ol. brown (5Y4/4) to dk. yel. brown (5Y3/2) ☐

dark: ol. black (5Y2/1) bands of multi-laminae ■ and individual laminae —

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC52 Sect.: 1 (0-152 cmbsf) Lat.: 25 02.29 N Long.: 112 49.29 W

Water Depth: 441 m



Remarks

SILTY CLAY (dusky yel. brown, 10YR2/2) grading to CLAYEY SAND (foram-rich, light ol. gray, 5Y5/2) down core; numerous gastropod and terrapod shells throughout

smear slides

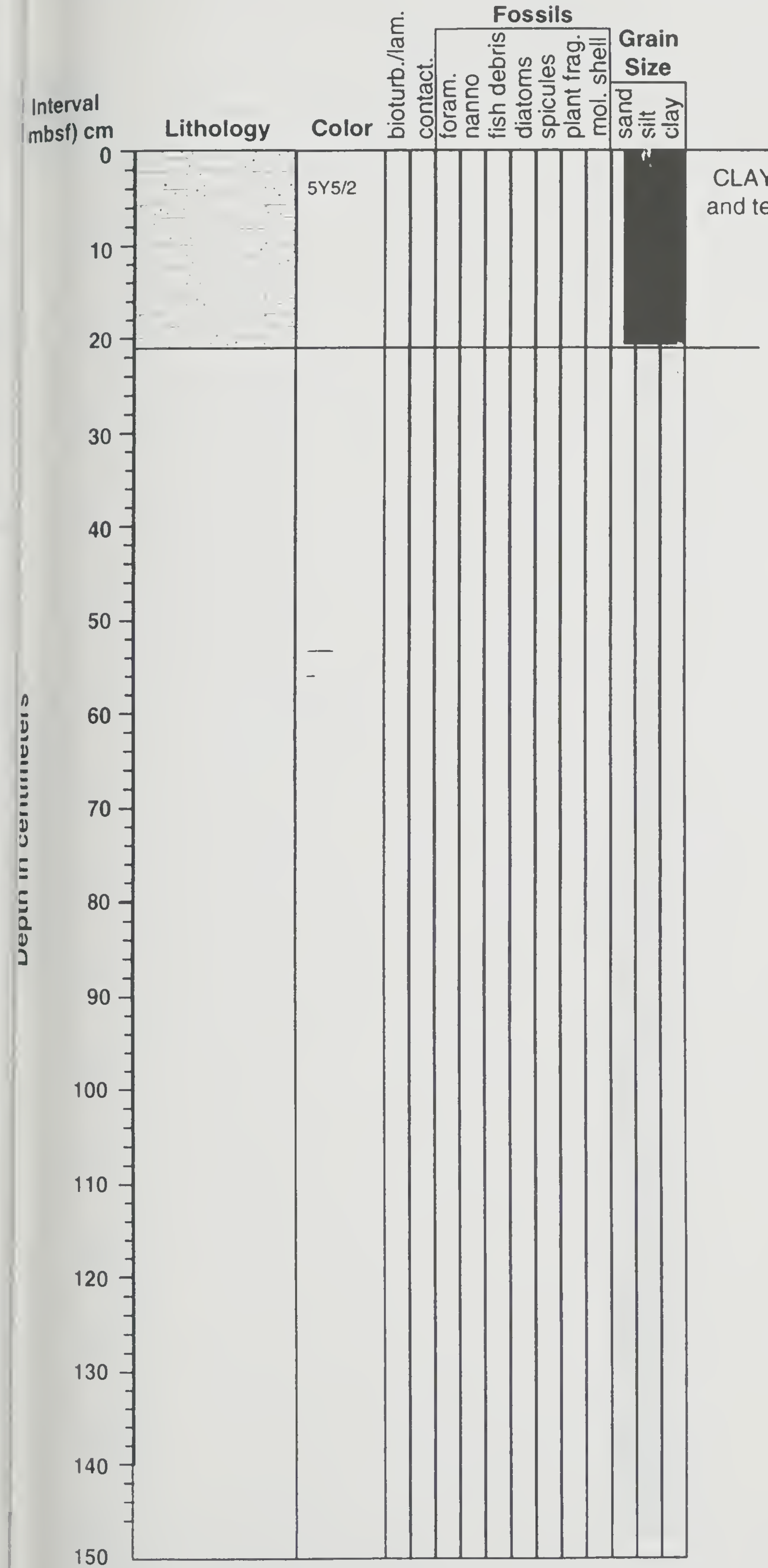
ss 20 cm (silty clay)
A: clay
C: nannos; forams; pyrite; lithic grains; sponge spic.; diatoms; organic matte

ss 120 cm (sand)
A: clay; forams; lithic grains
C: nannos; pyrite; organic matter; sponge spic.

152 cm = bottom of section 1 and base of core GC52

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC53 Sect.: 1 (150-171 cmbsf) Lat.: 25 00.6 N Long.: 112 48 49 W
Water Depth: 400 m



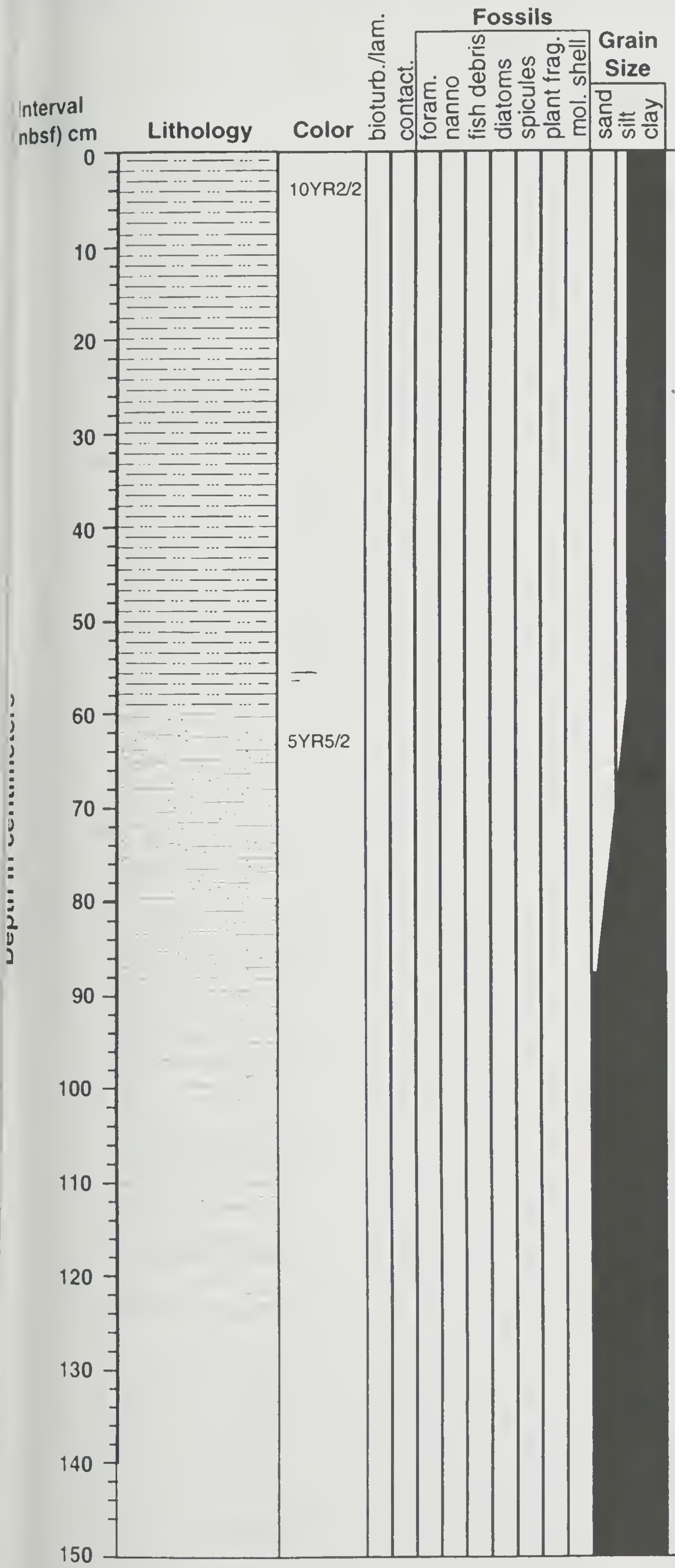
CLAYEY SAND (light ol. gray, 5Y5/2) numerous gastropod and terrapod shells throughout

21 cm = bottom of section 1; 171 cmbsf = base of core GC53

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC53 Sect.: 2 (0-150 cmbsf) Lat.: 25 00.6 N Long.: 112 48 49 W

Water Depth: 400 m



Remarks

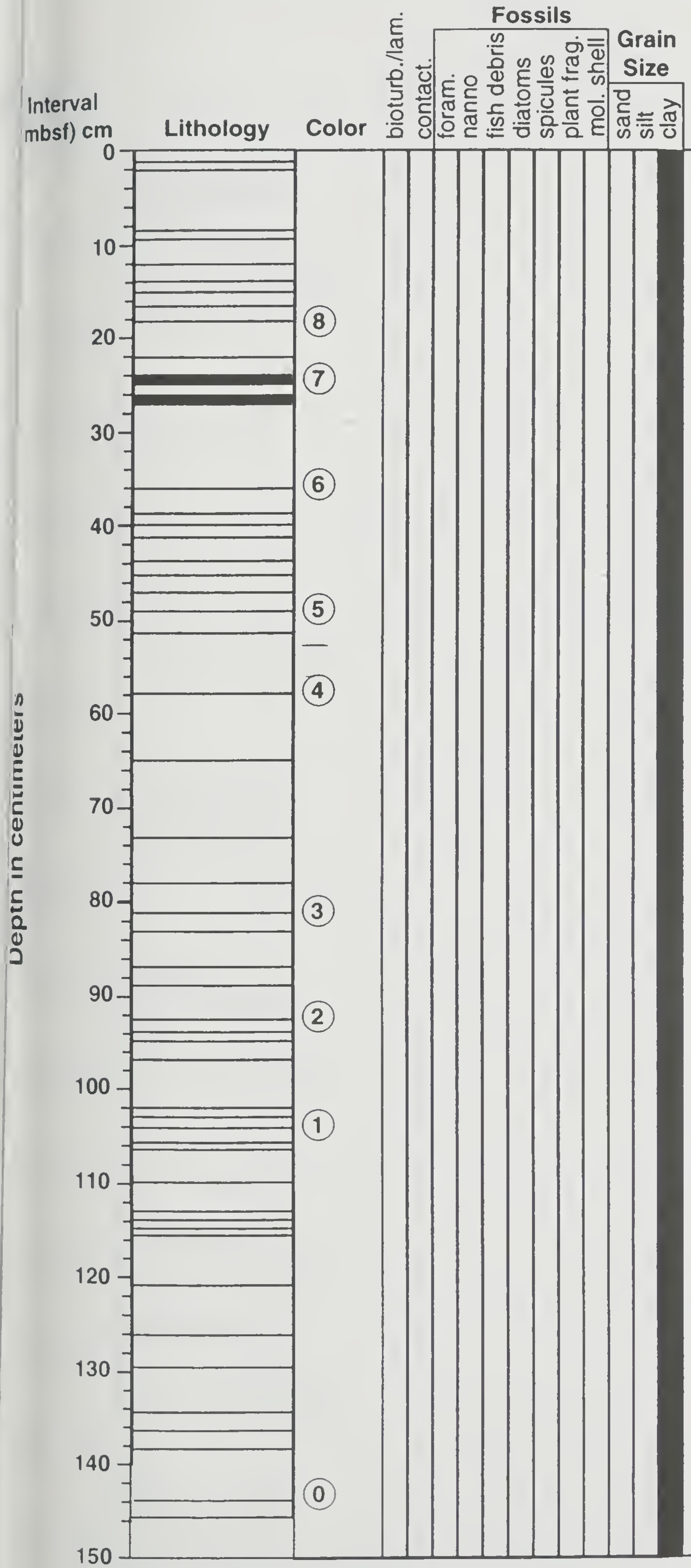
SILTY CLAY (dusky yel. brown, 10YR2/2) grading to CLAYEY SAND (light ol. gray, 5Y5/2) down core; numerous gastropod and terrapod shells below 60 cm

150 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC54 Sect.: 3 (0-150 cmbsf) Lat.: 25 11.07 N Long.: 112 44.22 W
Water Depth: 537 m



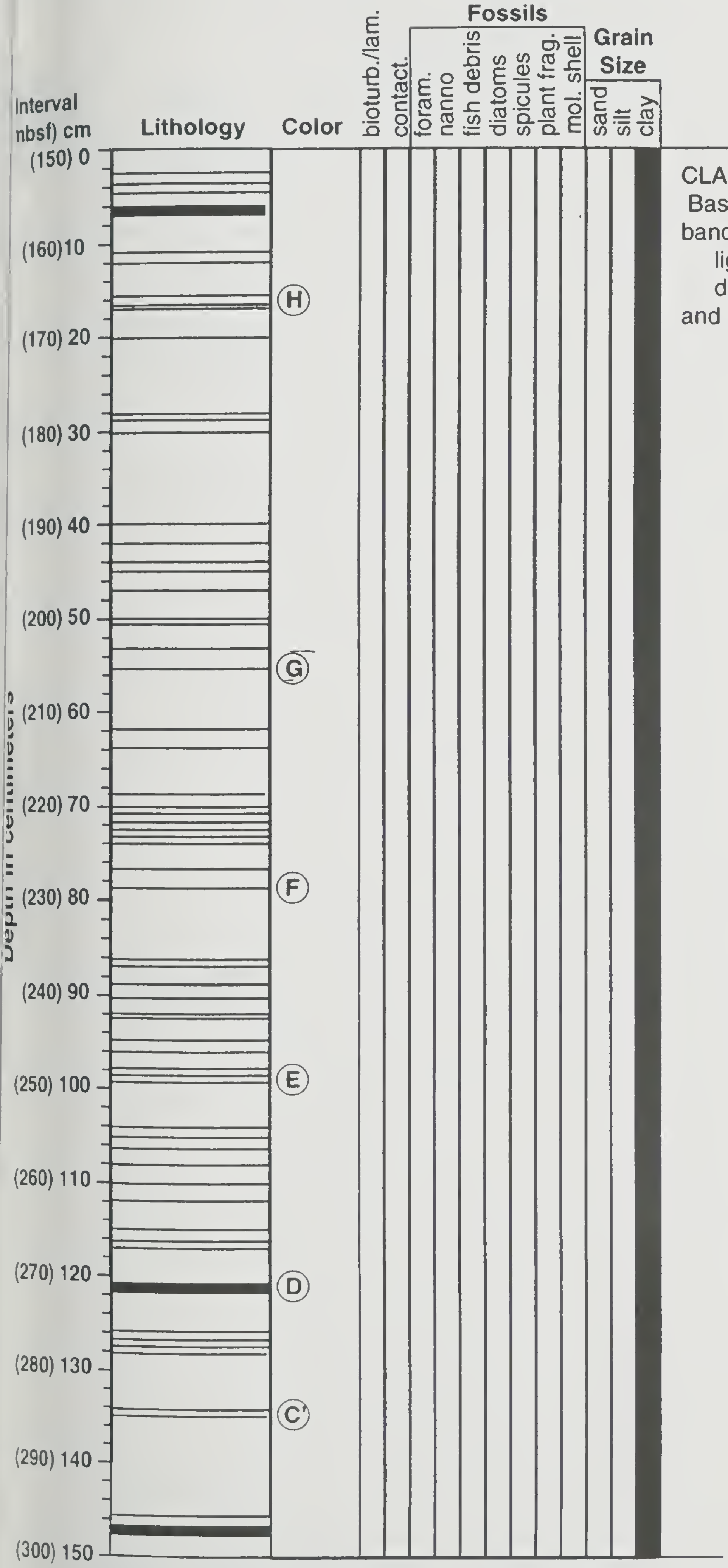
Remarks

CLAY (organic-rich) :
Basic stratigraphy is cm-scale interlayering of light and dark bands. The basic colors are:
light: (background) dark yel.. brown (10YR4/2) ☐
dark: ol. black (5Y2/1) bands of multi-laminae ■
and individual laminae —

150 cm = bottom of section 3

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC54 Sect.: 2 (150-300 cmbsf) Lat.: 25 11.07 N Long.: 112 44.22 W
Water Depth: 537 m

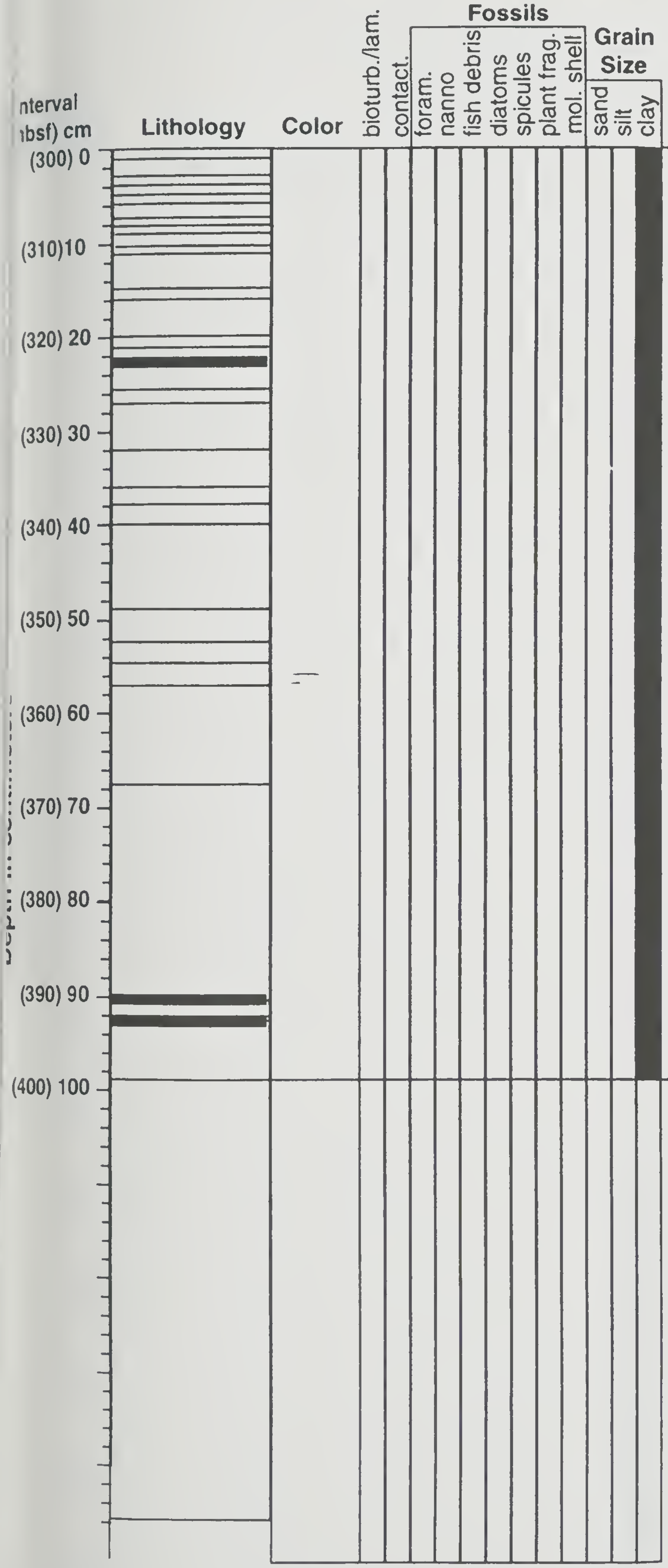


CLAY (organic-rich) :
Basic stratigraphy is cm-scale interlayering of light and dark bands. The basic colors are:
light: (background) dark yel.. brown (10YR4/2) ☐
dark: ol. black (5Y2/1) bands of multi-laminae ■
and individual laminae —

150 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: GC54 Sect.: 1 (300-399 cmbsf) Lat.: 25 11.07 N Long.: 112 44.22 W
Water Depth: 537 m



Remarks

CLAY (organic-rich) :
Basic stratigraphy is cm-scale interlayering of light and dark bands. The basic colors are:
light: (background) dark yel.. brown (10YR4/2) ☐
dark: ol. black (5Y2/1) bands of miult-laminae ■
and individual laminae —

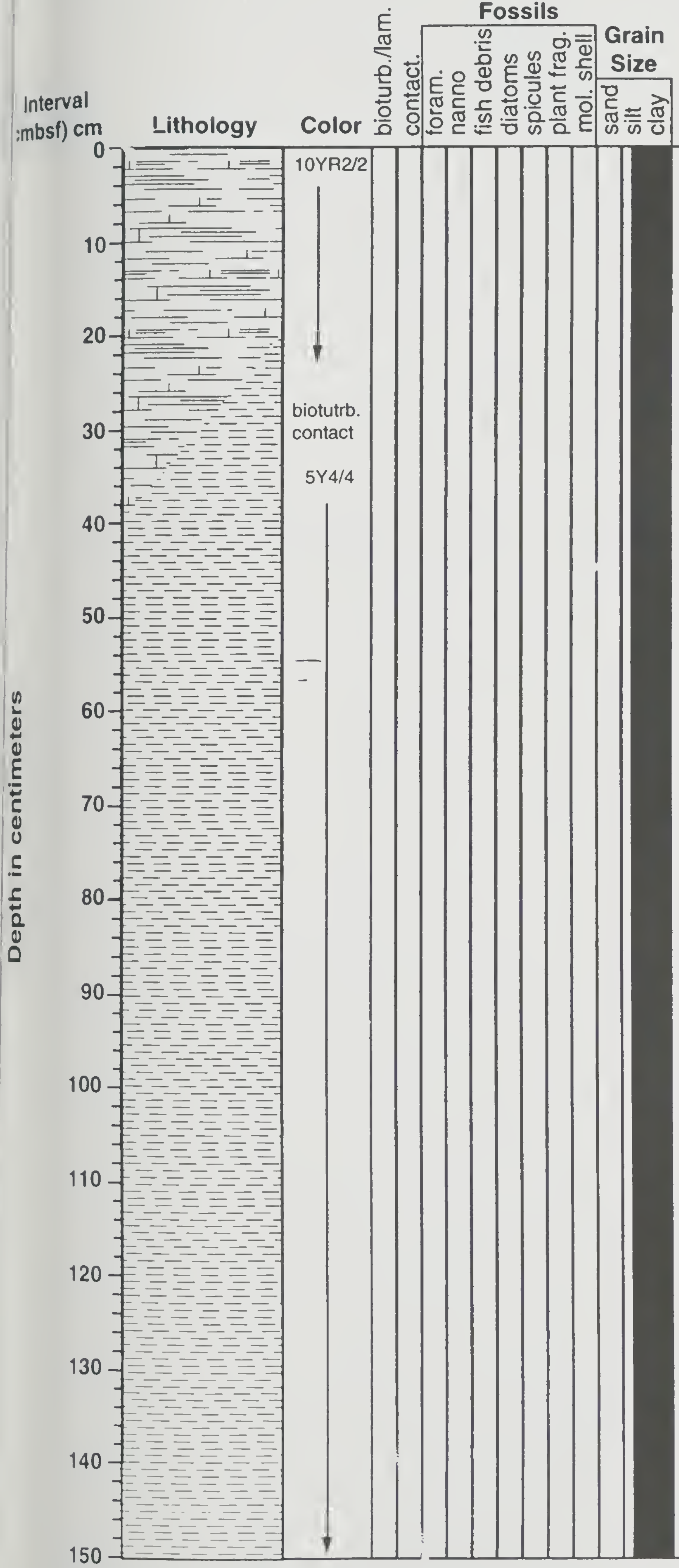
50-80 cm: core disturbed by splitting

99 cm = bottom of section 1; 399 cmbsf = base of core GC54

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC56 Sect.: 2 (0-150 cmbsf) Lat.: 26 12.95 N Long.: 113 46.12 W

Water Depth: 670 m



Remarks

upper (darker) SILTY CLAY :
homogeneous; dusky yel. brown (10YR2/2)

lower (lighter) SILTY CLAY: stiff, homogeneous with shell debris; mod. ol. brown (5Y4/4)

contact burrowed

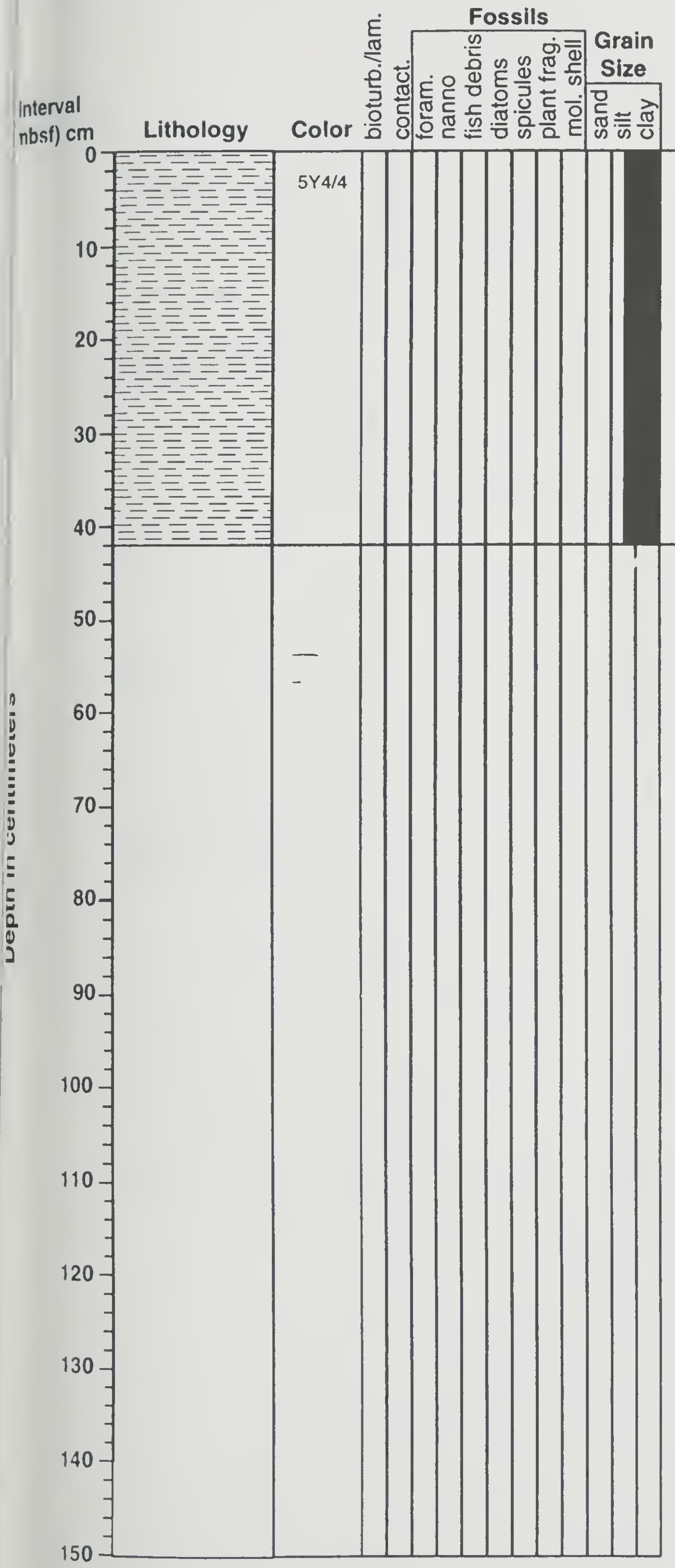
150 cm = bottom of sect. 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: GC56 Sect.: 1 (150-187 cmbsf) Lat.: 26 12.95 N Long.: 113 46.12 W

Water Depth: 670 m



Remarks

SILTY CLAY: homogeneous with shell debris; mod. ol. brown (5Y4/4)

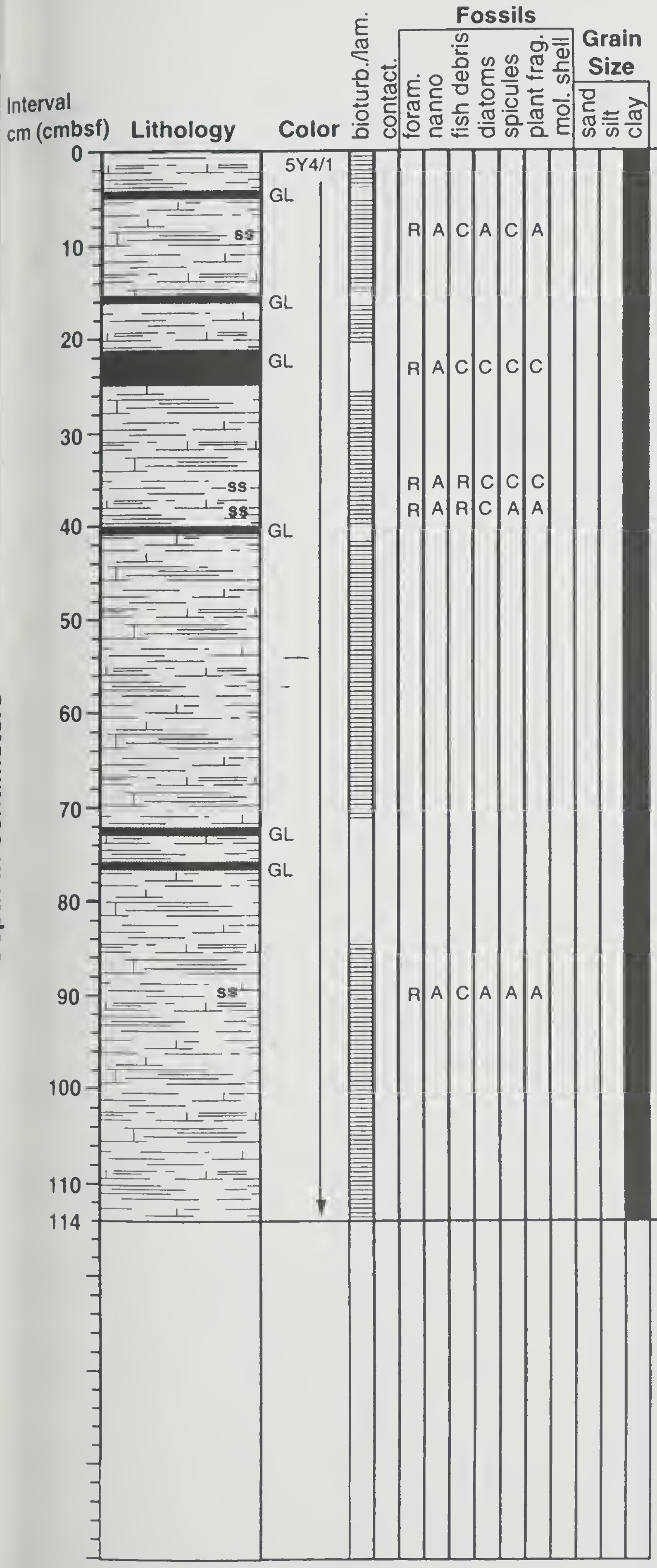
contact burrowed

bottom of section 1 = 42 cm; 187 cmbsf = base of core GC56

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: PC01 Sect.: 8 (0-114 cmbsf) Lat.: 34 14 N Long.: 120 03 W
Water Depth: 594 m



Remarks

CLAY (siliceous, nanno-bearing): olive gray (5Y4/1), laminated; dark laminations (ol blk, 5Y2/1) mostly faint and discontinuous; most distinct laminations occur 34-40 cm and 85-110 cm; several greenish gray (5GY6/1) clay layers occur thoughout (GL)

Smear slides:

ss 10 cm (dominant lithology)
A: clay; palynomorphs; nannos; carb. frags.; diatom frag. (girdle bands; *Thalassiosera; Chaetoceros* spores; *Navicula; Thallasionema; Thalassiothrix; Diploneis; Rhizosolenia;Nitzschia; Actinoptychus; Coscinodiscus; Amphora)*
C: silicoflag.; sponge spic.; pyrite framboids
R: forams

ss 24 cm (gray masive clay layer)
A: clay; pyrite; carb. frags
C: nannos; diatom frag. (*Thallasionema; Nitzschia; Actinoptychus; Cocconeis; Pseudoeunetia doliolus;* girdle bands*)*; sponge spic.; palynom.; fish debris; silicoflag.
R: forams

ss 36 cm (dominant lithology; darker)
A: clay; nannos
C: pyrite; carbonate frags..; sponge spic.; palynom.
R: forams; fish debris; silicoflag.; diatom frags. (*Pseudoeunotia; Cocconeis; Thalassiosira; Cyclotella; Rhizosolenia; Thalassionema; Chaetoceros* resting spores; centric girdle bands)

ss 38 cm (dominant lithology; lighter)
A: clay; nannos; palynom.
C: pyrite; sponge spic.; carbonate frags; diatom frag. (*Thalassionema; Cocconeis; Nitzschia; Thalassiosira; Coscinodiscus; Chaetoceros* resting spores, centric girdle bands)
R: fish debris; silicoflag.; Rads; forams

ss 90 cm (dominant lithology)
A: clay; diatom frag. (*Cocconeis: Surirella; Actinoptychus; Thalassionema; Thalassiosira; Coscinodiscus; Navicula; Chaetoceros* resting spores; centric girdle bands); nannos; sponge spic.; palynom.; pyrite
C: carbonate frags; silicoflag.; fish debris; forams

114 cm = bottom of section 8

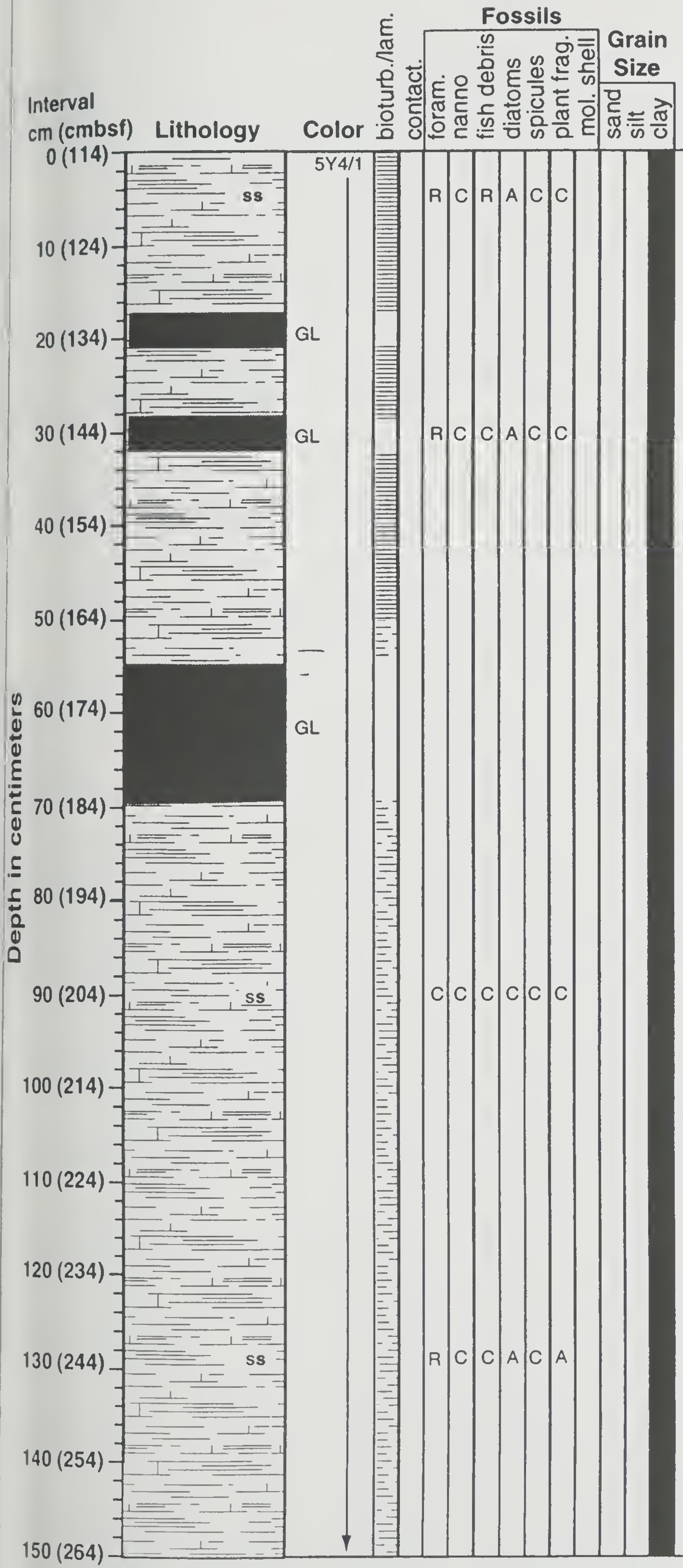
Most abundant foreaminifera

PC1-8 0-2 cm
Suggrunda eckisi, Bolivina seminuda, Rutherfordoides cornuta, Chilostomella ovoidea, Bolivina argentea, Loxostomum pseudobeyrichi

PC1-8 100-102 cm
Suggrunda eckisi, Bolivina seminuda, Loxostomum pseudobeyrichi, Chilostomella ovoidea, Rutherfordoides cornuta, Buliminella subfusiformis, Bolivina argentea

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: PC01 Sect.: 7 (114-265 cmbsf) Lat.: 34 14 N Long.: 120 03 W
Water Depth: 594 m



Remarks

CLAY (siliceous, nanno-bearing): olive gray (5Y4/1); discontinuous laminae to about 50 cm; some faint laminations below 50 cm; pale ol gray (10Y6/2) massive clay bands as indicated (GL)

Smear Slides:

ss 5 cm (dominant lithology)
A: clay; diatom frags.; carb. frags; nannos
C: silicoflag.; pyrite; (*Coscinodiscus; Navicula; Rhizosolenia; Cyclotella, Thalassiothrix; Thalassionema; Grammatophora; Actinoptychus; Thalassiosira; Triceratium; Pseudoeunotia; Chaetoceros* resting spores; centric girdle bands); sponge spic.; palynom.
R: forams; fish debris; rads

ss 30 cm (masive gray clay layer)
A: clay; diatom frags. (Cocconeis; Coscinodiscus; Rhizosolenia; Thalassionema; Actinoptychus; Thalassiosira; Nitzschia; Chaetoceros resting spores, centric girdle bands); palynom.; pyrite
C: nannos; carb. frags.; sponge spic.; fish debris
R: forams

ss 90 cm (dominant lithology)
A: clay; diatom frags. (*Coscinodiscus; Thalassionema; Thalassiosira; Pseudoeunotia; Chaetoceros* resting spores, centric girdle bands)
C: forams; sponge spic.; nannos; palynom.; pyrite
R: forams; rads; silicoflag.

ss 130 cm (dominant lithology)
A: clay; palynom.; diatom frags. (diatoms abundant due to fragments & girdle bands only; *Paralia; Chaetoceros* resting spores)
C: sponge spic.; pyrite; nannos; carb. frags.; fish debris; pyrite
R: forams

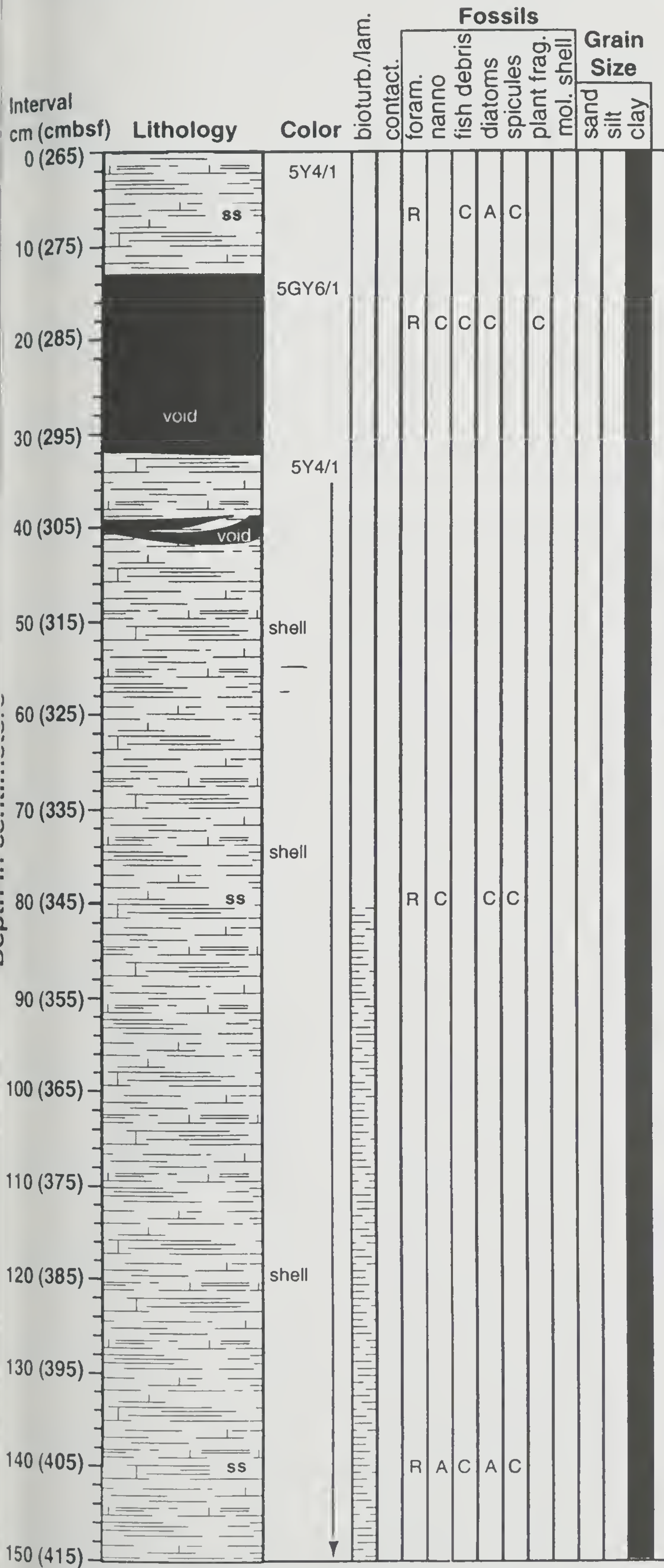
Most abundant foraminifera

PC1-7 100-102 cm
Bolivina argentea, Loxostomum pseudobeyrichi, Rutherfordoides comuta, Chilostomella ovoidea, Bolivina seminuda, Suggrunda eckisi, Bolivina advena

151 cm = bottom of section 7

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: PC01 Sect.: 6 (265-416 cmbsf) Lat.: 34 14 N Long.: 120 03 W
Water Depth: 594 m



Remarks

CLAY (siliceous, nanno-bearing): olive gray (5Y4/1); mostly massive; one massive lighter grn. gray clay layer (5GY6/1); faintly and discontinuously laminae below about 80 cm); voids created during coring as indicated

Smear Slides:

ss 6 cm **(dominant lithology)**
A: clay; diatom frags. (diatoms abundant due to fragments & girdle bands only; *Coscinodiscus; Thalassiosira; Pseudoeunotia; Navicula; Cyclotella; Chaetoceros* resting spores, centric girdle bands)
C: carb. frags; fish debris; sponge spic.
R: forams; rads
.

ss 17 cm (massive gray clay layer)
A: clay; pyrite
C: carb. frags; fish debris; palynom.; diatom frags.; nannos; sponge spic.

ss 80 cm (dominant lithology)
A: clay
C: diatom frags.; nannos; sponge spic.
R: forams; fish debris; rads

ss 140 cm (dominant lithology)
A: clay; diatom frags. (*Coscinodiscus; Thalassiosira; Navicula; Thalassionema; Pseudoeunotia; Nitzschia; Chaetoceros* resting spores; centric girdle bands); nannos; pyrite; carb. frags.
C: sponge spic.; fish debris
R: silicoflag.; forams

Most abundant foraminifera

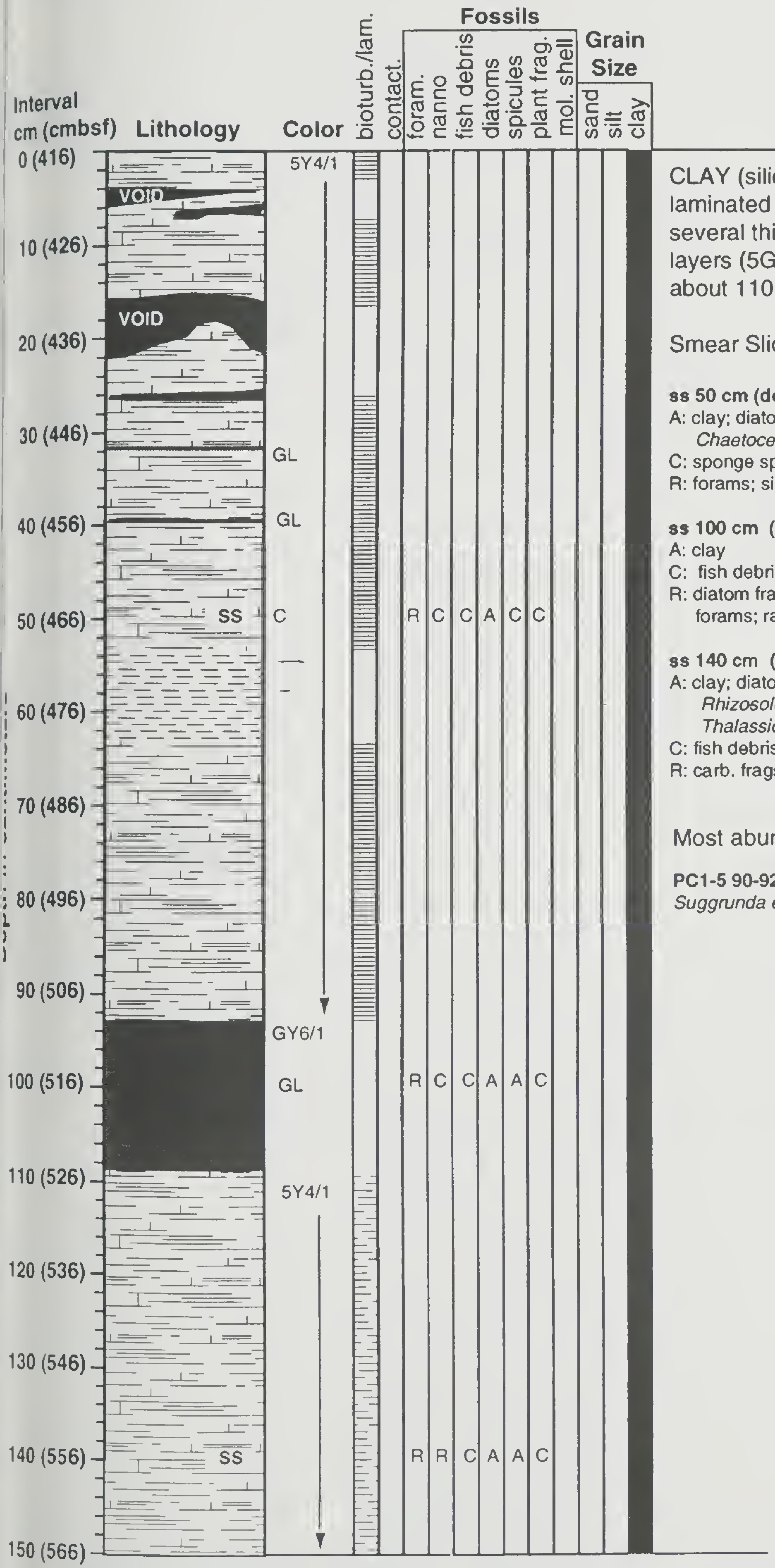
PC1-6 100-102 cm
Bolivina argentea, Bolivina seminuda, Bolivina advena, Rutherfordoides cornuta, Suggrunda eckisi

151 cm = bottom of section 6

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: PC01 Sect.: 5 (416-566 cm) Lat.: 34 14 N Long.: 120 03 W

Water Depth: 594 m



Remarks

CLAY (siliceous, nanno-bearing): olive gray (5Y4/1); laminated to massive; laminations mustly indistinct and faint; several thin and one thick one massive lighter grn. gray clay layers (5GY6/1); faintly and discontinuously laminated below about 110 cm); voids created during coring as indicated

Smear Slides:

ss 50 cm (dominant lithology)
A: clay; diatom frags. (*Coscinodiscus; Navicula; Thalassionema; Chaetoceros* resting spores; centric girdle bands); pyrite
C: sponge spic.; fish debris; nannos; carb. frags
R: forams; silicoflag.

ss 100 cm (massive gray clay layer)
A: clay
C: fish debris; palynom.;carb. frags.; nannos; pyrite
R: diatom frags. (a few centric fragments and girdle bands); forams; rads.; sponge spic.

ss 140 cm (dominant lithology)
A: clay; diatom frags (*Coscinodiscus; Diploneis; Thalassionema; Rhizosolenia; Cocconeis; Grammatophora, Neodenticula; Nitzschia; Thalassiosira; Chaetoceros* resting spores; centric girdle bands.; pyrite; s
C: fish debris; palynomorphs; sponge spic.
R: carb. frags.; nannos; forams; carb. frags.; silicoflag.

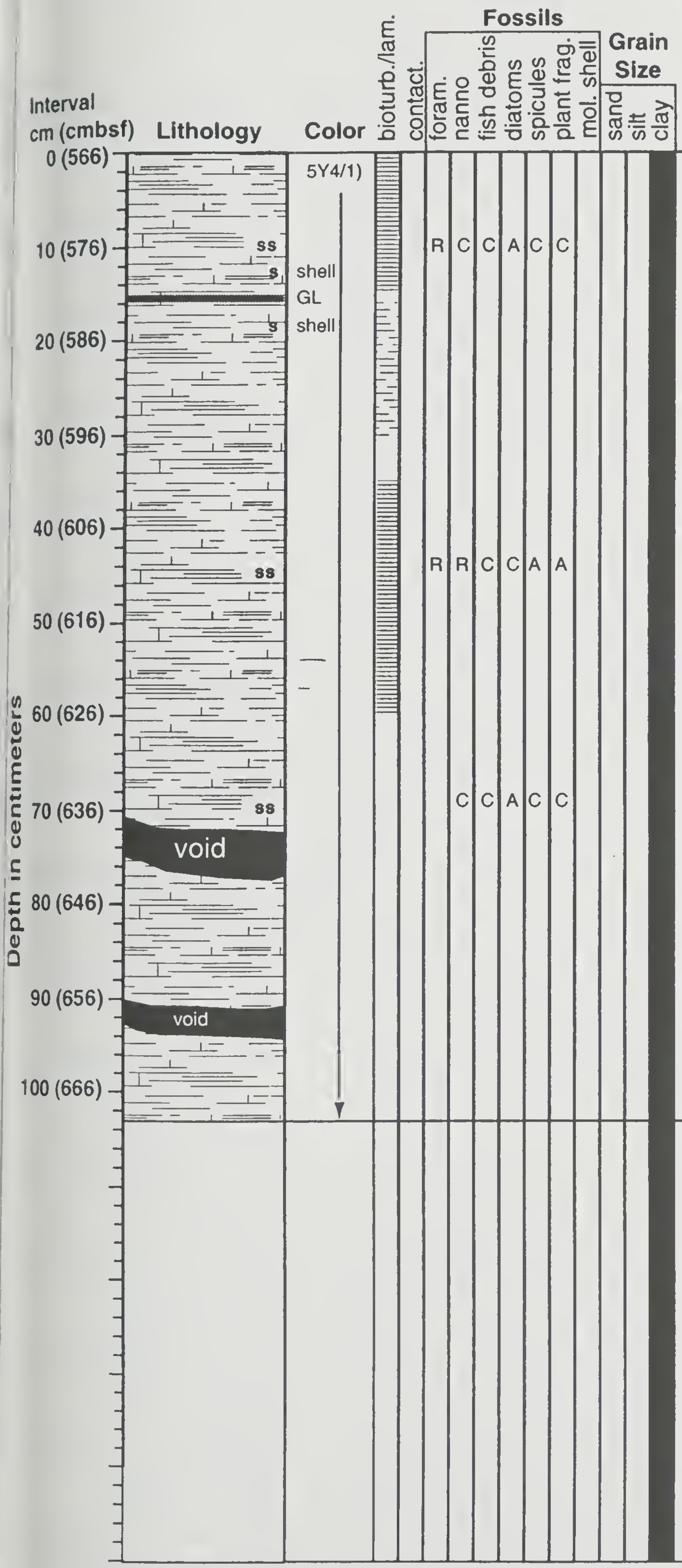
Most abundant foraminifea

PC1-5 90-92 cm
Suggrunda eckisi, Bolivina seminuda, Bolivina argentea

150 cm = bottom of section

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: PC01 Sect.: 4 (566-669 cm) Lat.: 34 14 N Long.: 120 03 W
Water Depth: 594 m



Remarks

CLAY (siliceous, nanno-bearing): olive gray (5Y4/1); faintly laminated (0-31 cm), well laminated (36-58 cm), to massive (32-36 cm and 58-103 cm); thin lighter grn. gray clay layers (5GY6/1) designated GL; voids created during coring as indicated

Smear Slides:

ss 10 cm (dominant lithology)
A: clay; diatom frags. *(Thalassiosira; Diploneis; Cocconeis; Grammatopho; Neodenticula; Pseudoeunotia; Epithemia;* centric girdle bands)
C: nannos; carb. frags.; sponge spic.; palynom.; pyrite; fish debris
R: forams; rads; silicoflag

ss 45 cm (dominant lithology)
A: clay; sponge spic.; palynom.;
C: diatom frags. *(Thalassiosira; Thalassionema; Cocconeis; Grammatophora;* centric girdle bands); carb. frags.; pyrite; fish debris
R: nannos; silicoflag; rads; forams

ss 70 cm (massive gray clay layer)
A: clay; pyrite
C: diatom frags. *(Coscinodiscus; Thalassionema; Chaetoceros* resting spores; centric girdle bands*)*; nannos; carb. frags.; sponge spic.; palynom.; fish debris;

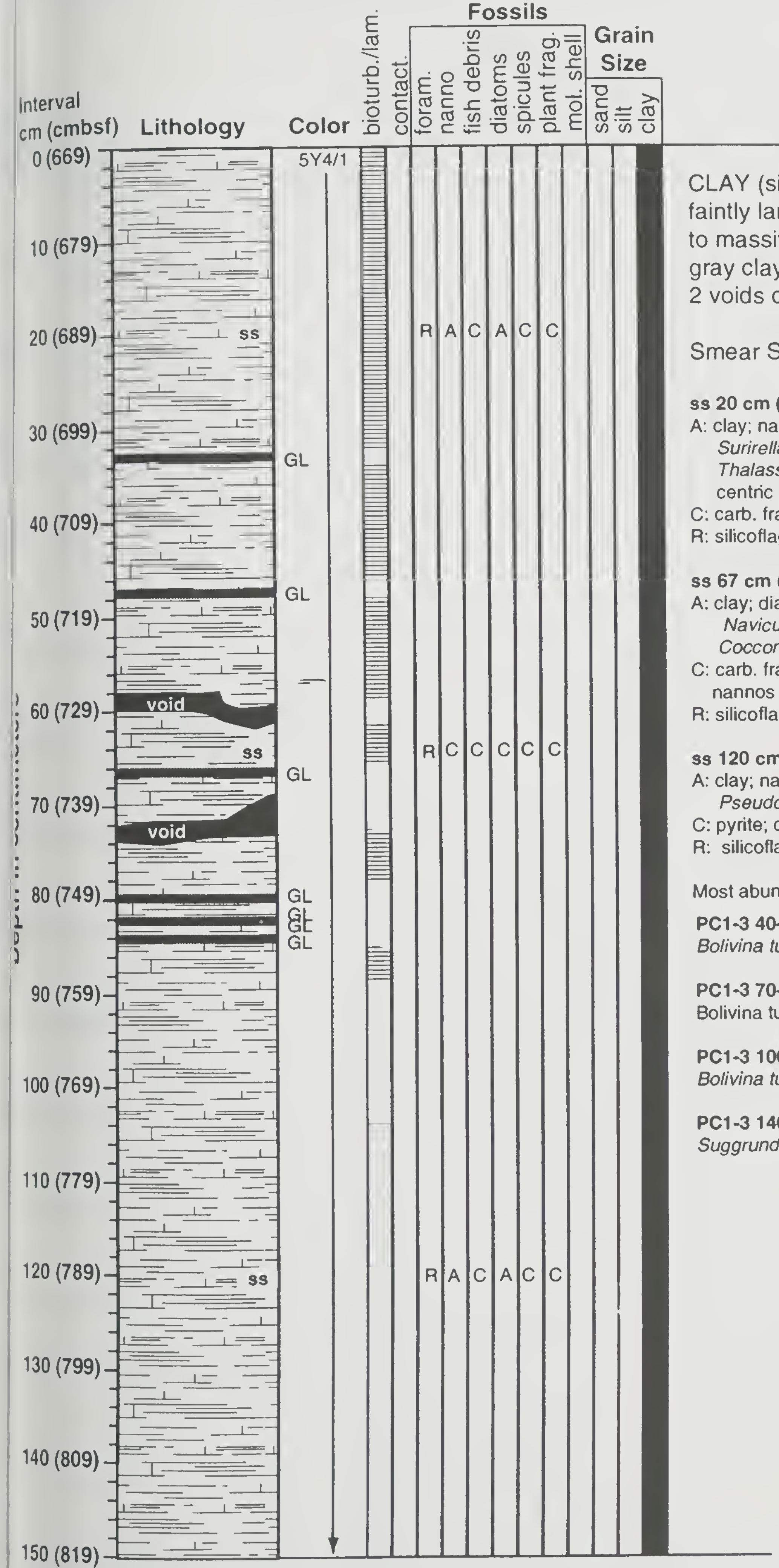
Most abundant foraminifera

PC1-4 100-102 cm
Suggrunda eckisi, Bolivina tumida, Bolivina argentea

103 cm = bottom of section 4

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: PC01 Sect.: 3 (669-819 cm) Lat.: 34 14 N Long.: 120 03 W
Water Depth: 594 m



Remarks

CLAY (siliceous, nanno-bearing): olive gray (5Y4/1); faintly laminated (0-80 cm), well laminated (80-84 cm), to massive (84-105 cm); thin lighter grn. gray clay layers (5GY6/1) designated GL; 2 voids created during coring as indicated

Smear Slides:

ss 20 cm (dominant lithology)
A: clay; nannos; diatom frags. *(Coscinodiscus; Actinoptychus; Cocconeis; Surirella; Navicula; Thalassionema; Rhizosolenia; Pleurosigma; Thalassiosira; Pseudoeunotia; Paralia; Chaetoceros* resting spores; centric girdle bands)
C: carb. frags.; sponge spic.; palynom.; pyrite; fish debris
R: silicoflagil.; forams; rads

ss 67 cm (dominant lithology)
A: clay; diatom frags. *(Coscinodiscus; Neodenticula; Cyclotella; Surirella; Navicula; Thalassionema; Rhizosolenia; Nitzschia; Thalassiosira; Cocconeis; Epithemia; Chaetoceros* resting spores: centric girdle bands)
C: carb. frags.; pyrite; fish debris; palynom. nannos
R: silicoflag.; forams; rads; sponge spic.

ss 120 cm (dominant lithology)
A: clay; nannos; diatom frags. *(Coscinodiscus; Thalassionema; Pseudoeunotia; Chaetoceros resting spores: centric girdle bands)*
C: pyrite; carb. frags.; sponge spic.; palynom.; fish debris
R: silicoflag.; forams

Most abundanr foraminifera

PC1-3 40-42 cm
Bolivina tumida, Bolivina argentea, Loxostomum pseudobeyrichi

PC1-3 70-72 cm
Bolivina tumida

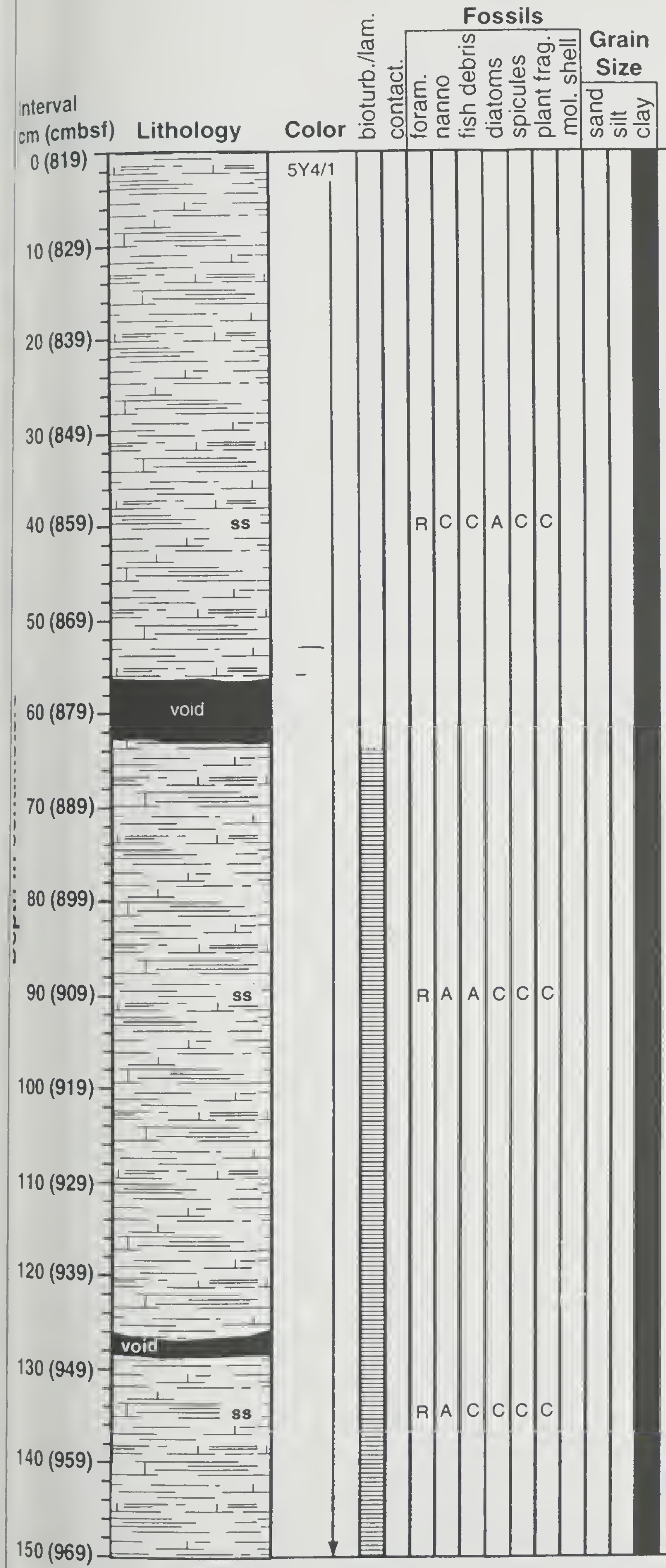
PC1-3 100-102 cm
Bolivina tumida, Uvigerina peregrina

PC1-3 140-142 cm
Suggrunda eckisi

150 cm = bottom of section 3

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: PC01 Sect.: 2 (819-969 cm) Lat.: 34 14 N Long.: 120 03 W
Water Depth: 594 m



Remarks

CLAY (siliceous, nanno-bearing): olive gray (5Y4/1); massive, homog. (0-56 cm); faintly laminated (64-100 cm); well laminated (100-150 cm); 2 voids created during coring a indicated

Smear Slides:

ss 40 cm (dominant lithology)
A: clay; diatom frags. (*Coscinodiscus; Paralia; Cyclotella; Nitzschia; Thalassionema; Navicula; Thalassiosira; Pseudoeunotia; Cocconeis Actinoptychus; Chaetoceros* resting spores: centric girdle bands
C: nannos; carb. frags.; sponge spic.; palynom.; pyrite; fish debris
R: silicoflagil.; forams; rads

ss 90 cm (dominant lithology)
A: clay; pyrite; nannos
C: diatom frags. (*Coscinodiscus; Triceratium; Cyclotella; Surirella; Nitzschia; Thalassionema; Thalassiothrix; Thalassiosira; Pseudoeunotia; Chaetoceros* resting spores: centric girdle bands); carb. frags.; fish debris; sponge spic.; palynom.
R: silicoflag.; forams; rads.

ss 134 cm (dominant lithology)
A: clay; pyrite; nannos
C: diatom frags (*Coscinodiscus; Cocconeis; Cyclotella; Surirella; Nitzschia; Thalassionema; Amphora; Thalassiosira; Pseudoeunotia; Actinoptychus; Neodenticula; Epithemia; Navicula; Achnanthes; Grammatophora*; centric girdle bands); carb. frags.; sponge spic.; palynom.; fish debris
R: silicoflag.; forams

Most abundant foraminifera

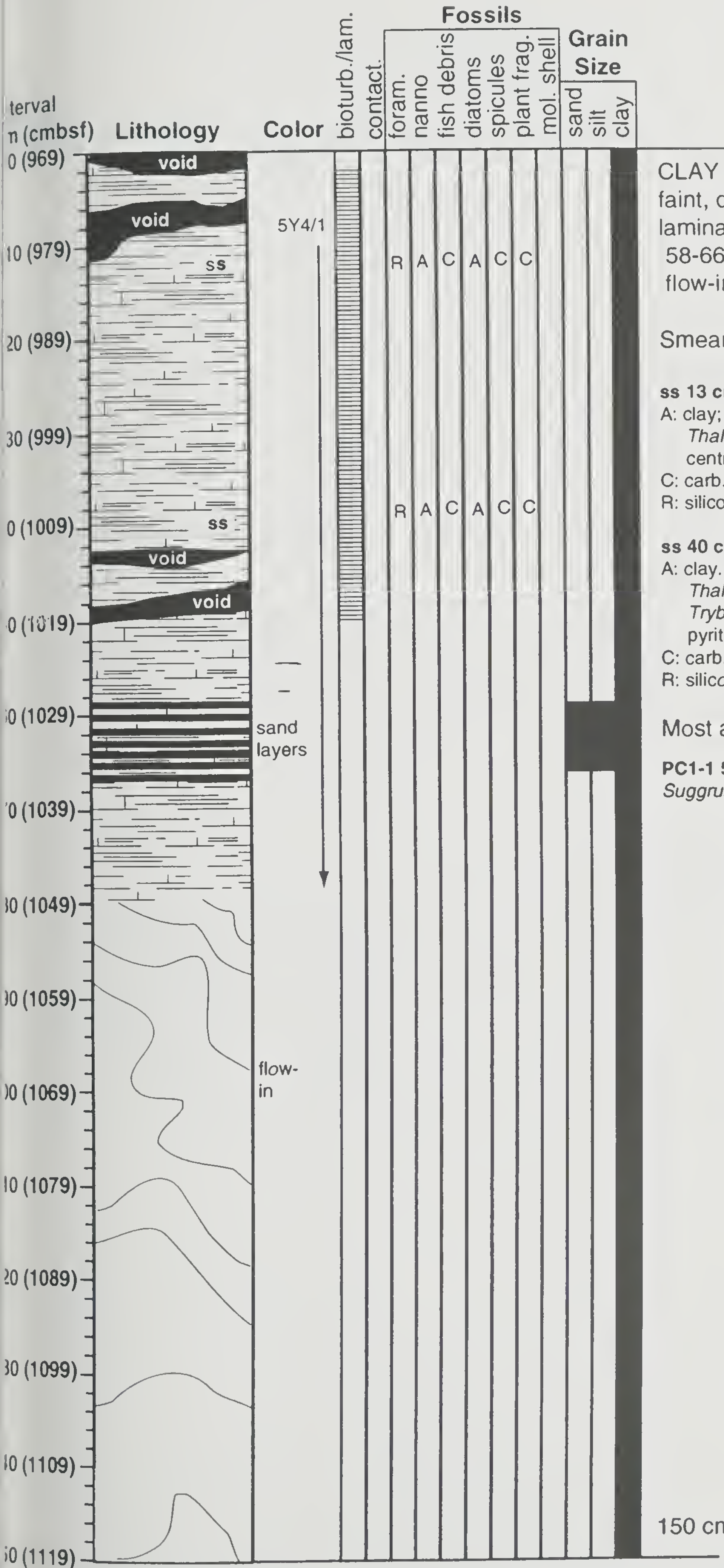
PC1-2 50-52 cm
Suggrunda eckisi, Loxostomum pseudobeyrichi, Bolivina tumida, Bolivina argentea

PC1-2 133-135 cm
Bolivina argentea, Suggrunda eckisi, Bolivina tumida, Rutherfordoides comuta

150 cm = bottom of section

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC01 Sect.: 1 (969-1119 cm) Lat.: 34 14 N Long.: 120 03 W
Water Depth: 594 m



Remarks

CLAY (siliceous, nanno-bearing): olive gray (5Y4/1); faint, discontinuous laminae to about 50 cm; more faintly laminated to massive 50-80 cm; thin sand layers (ol. black) 58-66 cm; voids created during coring as indicated; flow-in below 80 cm

Smear Slides:

ss 13 cm (dominant lithology)
A: clay; diatom frags. (*Coscinodiscus; Cocconeis; Cyclotella; Nitzschia; Thalassionema; Thalassiosira; Actinoptychus; Neodenticula;* centric girdle bands); nannos
C: carb. frags.; sponge spic.; palynom.; pyrite; fish debris
R: silicoflagil.; forams; rads

ss 40 cm (dominant lithology)
A: clay.; diatom frags. (*Coscinodiscus; Cocconeis; Cyclotella; Thalassionema; Thalassiosira; Pseudoeunotia; Actinoptychus; Tryblionella; Paralia; Chaetoceros* resting spores; centric girdle bands); pyrite; nannos; palynom.
C: carb. frags.; fish debris; sponge spic.
R: silicoflag.; forams; rads

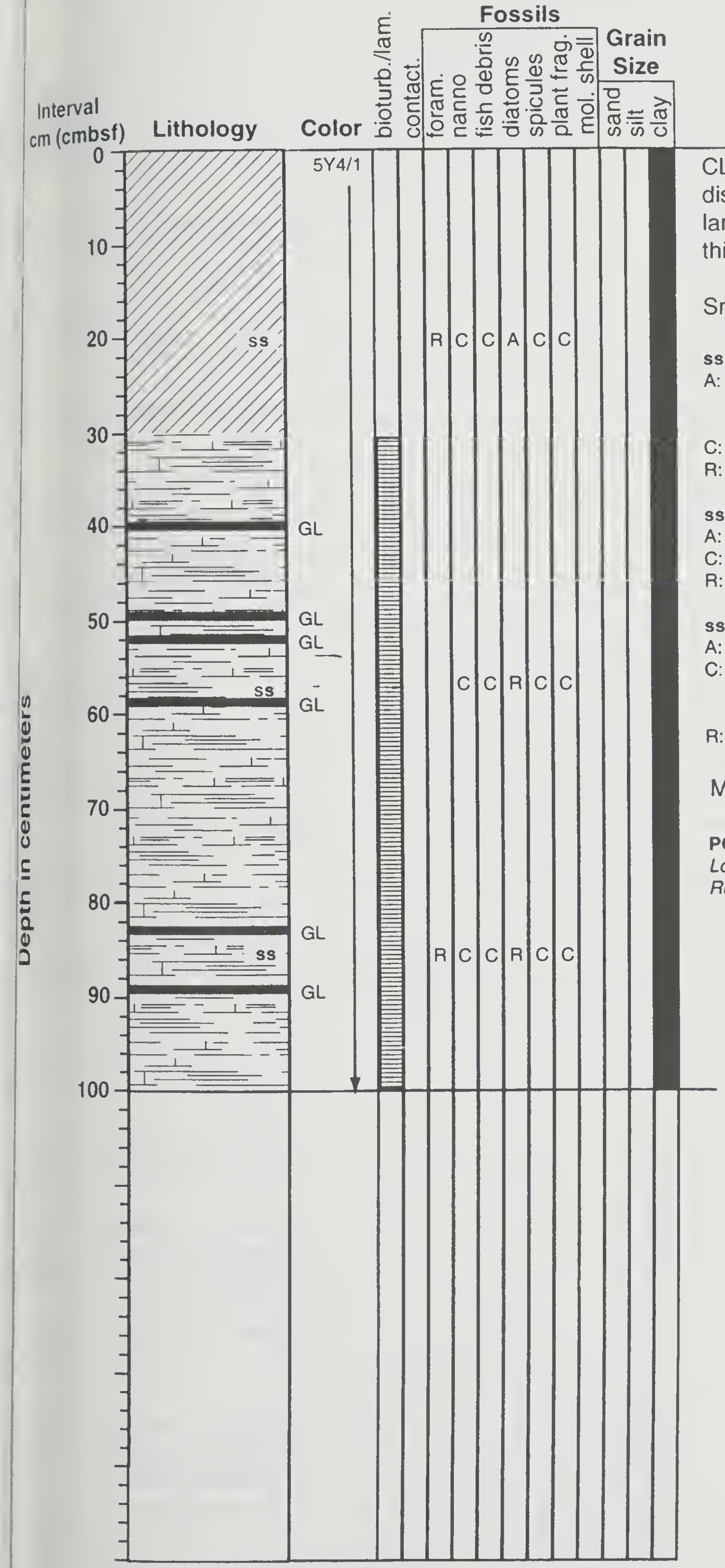
Most abundant foraminifera

PC1-1 55-57 cm
Suggrunda eckisi, Bolivina tumida, Uvigerina sp.

150 cm = bottom of section; 1119 cmbsf = base of core PC1

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: PC2 Sect.: 7 (0-100 cmbsf) Lat.: 34 16 N Long.: 119 58 W
Water Depth: 590 m



Remarks

CLAY (siliceous, nanno-bearing): olive gray (5Y4/1); disturbed by coring (soup) to about 30 cm; fairly well laminated to about 50 cm, faintly laminated 50-100 cm; thin lighter grn. gray clay layers (5GY6/1) designated GL;

Smear Slides:

ss 20 cm (dominant lithology)
A: clay; diatom frags *(Actinoptychus; Nitzschia; Thalassiosira; Coscinodiscus; Pseudoeunotia; Thalassionema; Cyclotella; Navicula; Cocconeis; Pluerosigma; Neodenticula; Diploneis;* centric girdle bands)
C: carb. debris; sponge spic.; nannos; pyrite; fish debris; palynom.
R: forams; rads; silicoflag.

ss 57 cm (dominant lithology)
A: clay
C: carb. debris; sponge spic.; nannos; pyrite; fish debris; palynom.
R: diatoms (a few girdle bands); silicoflag.

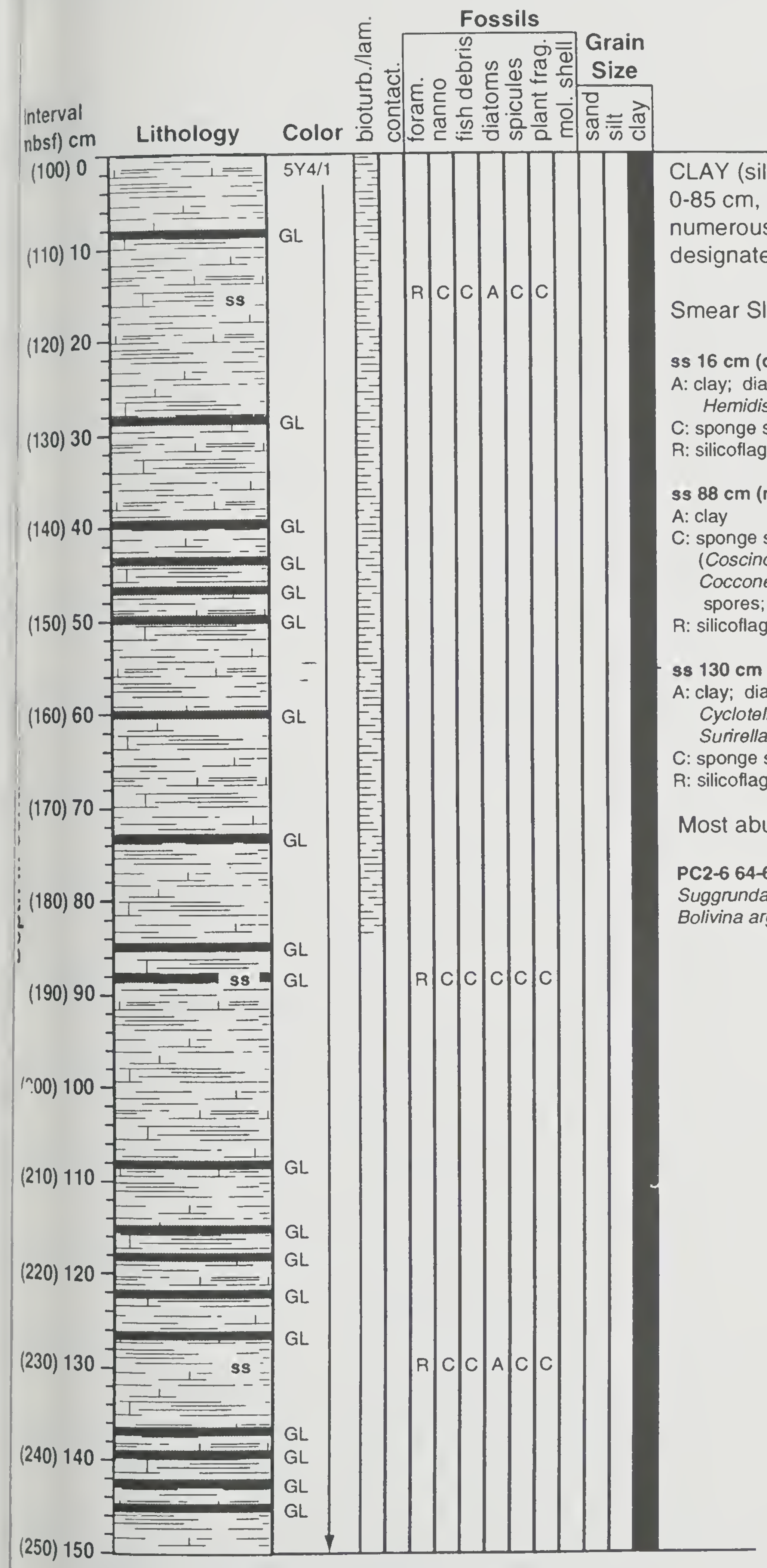
ss 86 cm (dominant lithology)
A: clay
C: diatoms (*Lyrella; Neodenticula; Cocconeis; Grammatophora; Thalassiosira*, and a few girdle bands); carb. debris; sponge spic.; nannos; pyrite; fish debris; palynom.
R: forams; silicoflag.; rads; silicoflag.

Most abundant foraminifera

PC2-7 54-56 cm:
Loxostomum pseudobeyrichi, Suggrunda eckisi, Bolivina seminuda, Rutherfordoides comuta, Bolivina advena

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC2 Sect.: 6 (100-250 cmbsf) Lat.: 34 16 N Long.: 119 58 W
Water Depth: 590 m



CLAY (siliceous): olive gray (5Y4/1); faintly laminated 0-85 cm, massive to very faintly laminated below 85 cm; numerous thin lighter grn. gray clay layers (5GY6/1) designated GL

Smear Slides:

ss 16 cm (dominant lithology)
A: clay; diatoms (*Coscinodiscus; Pseudoeunotia; Thalassionema; Navicula; Hemidiscus; Chaetoceros* resting spores; centric girdle bands)
C: sponge spic.; fish debris; carb. frags.; palynom.; pyrite; nannos
R: silicoflag; forams; rads

ss 88 cm (massive gray clay layer)
A: clay
C: sponge spic.; fish debris; carb. debris; palynom.; pyrite; nannos; diatoms (*Coscinodiscus; Surirella; Thalassionema; Lyrella; Thalassiosira; Cocconeis; Skeletonema; Nitzschia; Amphora; Chaetoceros* resting spores; centric girdle bands)
R: silicoflag; forams; rads

ss 130 cm (dominant lithology)
A: clay; diatoms (*Coscinodiscus; Odontella; Thalassionema; Neodenticula; Cyclotella; Cocconeis; Navicula; Nitzschia; Actinoptychus; Hemidiscus; Surirella; Pseudoeunotia; Chaetoceros* resting spores; girdle bands)
C: sponge spic.; fish debris; carb. debris; palynom.; pyrite; nannos
R: silicoflag; forams; rads

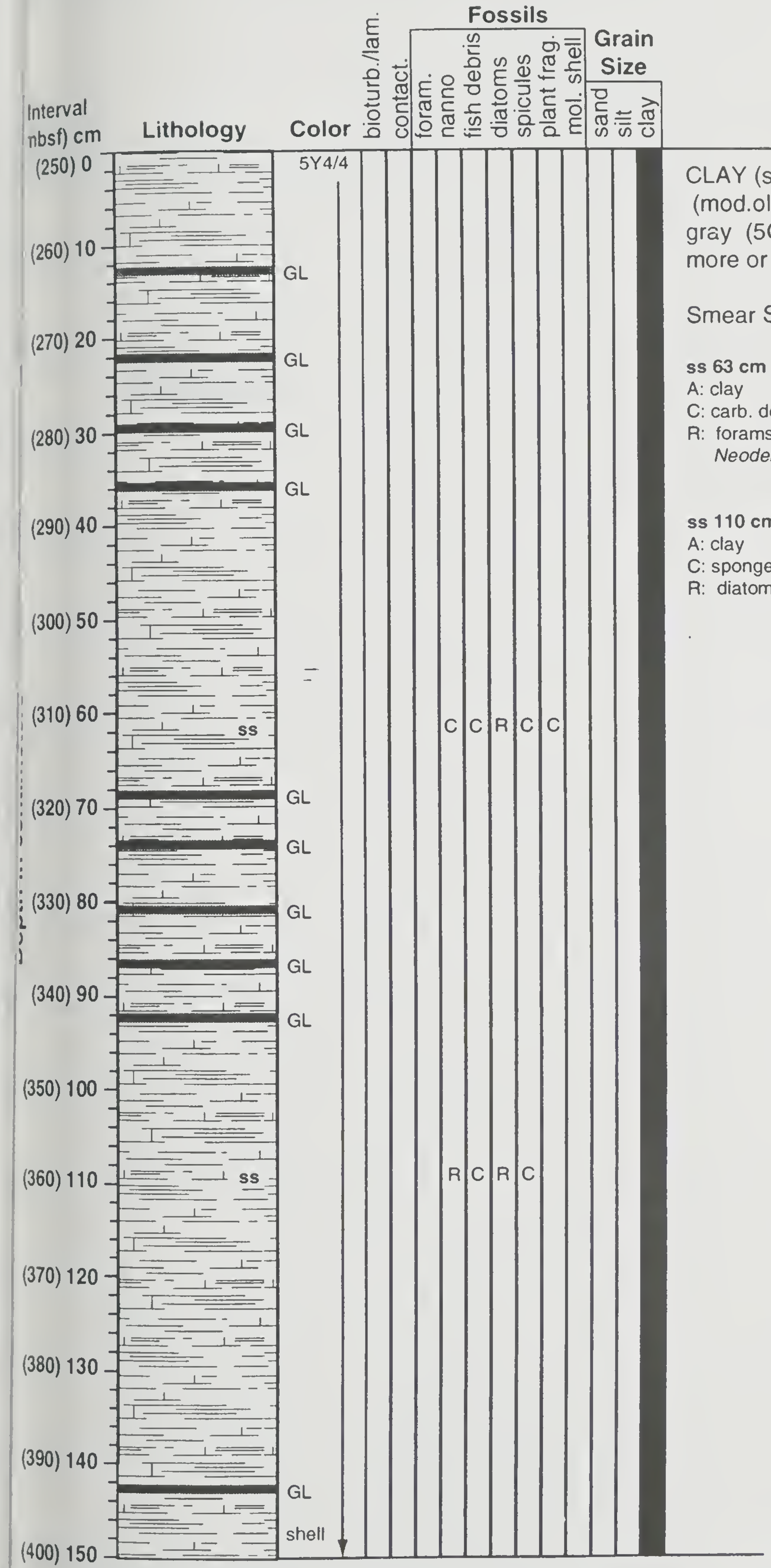
Most abundant foraminifera

PC2-6 64-66 cm
Suggrunda eckisi, Bolivina seminuda, Loxostomum pseudobeyrichi, Bolivina argentea, Rutherfordoides cornuta

150 cm = bottom of section 6

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC2 Sect.: 5 (250-400 cmbsf) Lat.: 34 16 N Long.: 119 58 W
Water Depth: 590 m



Remarks

CLAY (siliceous; nanno-bearing): generally lighter than abov (mod.olive brown, 5Y4/4), with numerous thin lighter grn. gray (5GY6/1) clay layers (5GY6/1) throughout (GL); massiv more or less homogeneous with only a hint of lamination

Smear Slides:

ss 63 cm (dominant lithology)
A: clay
C: carb. debris; sponge spic.; nannos; pyrite; fish debris; palynom.
R: forams; silicoflag.; diatoms (*Coscinodiscus; Thalassionema; Neodenticula; Thalassiosira;* girdle bands)

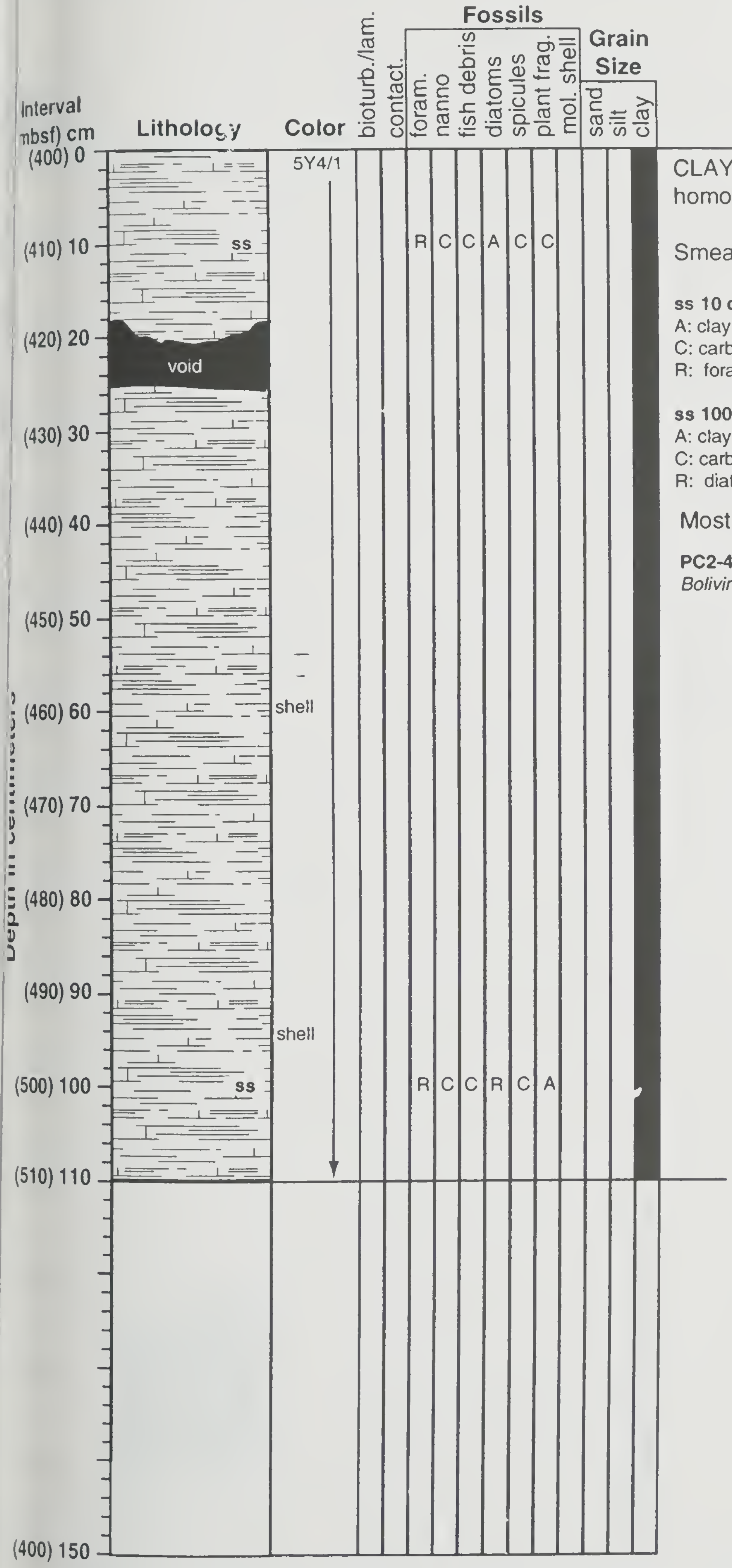
ss 110 cm (dominant lithology)
A: clay
C: sponge spic.; pyrite; fish debris
R: diatoms (a few girdle bands); silicoflag.; nannos; forams

150 cm = bottom of section 5

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC2 Sect.: 4 (400-510 cmbsf) Lat.: 34 16 N Long.: 119 58 W

Water Depth: 590 m



Remarks

CLAY (siliceous, nanno-bearing): olive gray (5Y4/1); homogeneous

Smear Slides:

ss 10 cm (dominant lithology)
A: clay; diatom frags.(abundant due to an abundance of girdle bands)
C: carb. debris; sponge spic.; nannos; pyrite; fish debris; palynom.
R: forams; silicoflagil.

ss 100 cm (dominant lithology)
A: clay; palynom.
C: carb. debris; sponge spic.; nannos; pyrite
R: diatoms (a few girdle bands); forams.; silicoflagil.

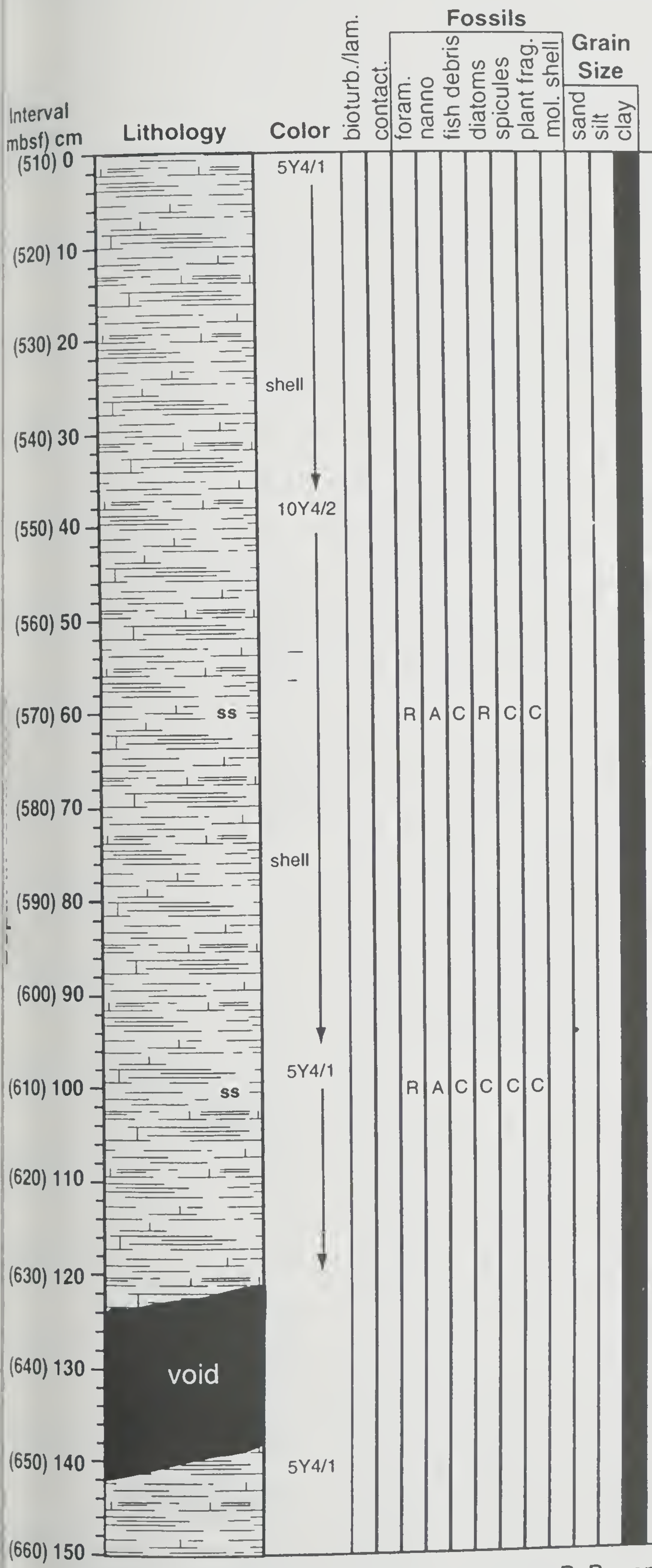
Most abundant foraminifera

PC2-4 80-82 cm
Bolivina argentea, Loxostomum pseudobeyrichi

110 cm = bottom of section 4

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC2 Sect.: 3 (510-660 cmbsf) Lat.: 34 16 N Long.: 119 58 W
Water Depth: 590 m



Remarks

CLAY (siliceous, nanno-bearing): slightly lighter (10Y4/2) to darker (5Y4/1) olive gray; homogeneous (starting to see macro-burrows, e.g. Planolites type)

Smear Slides:

ss 60 cm (dominant lithology, light)
A: clay; nannos; pyrite
C: carb. debris; sponge spic.; nannos; fish debris; palynom.
R: diatom frags. (only a few girdle bands); forams; silicoflagil.

ss 100 cm (dominant lithology; dark)
A: clay; carb. frags.; nannos
C: diatoms (*Coscinodiscus; Thalassiosira; Thalassionema; Cocconeis; Cyclotella; Chaetoceros* resting spores; common girdle bands); carb. debris; sponge spic.; palynom.; fish debris; pyrite
R: ; forams.; silicoflag.

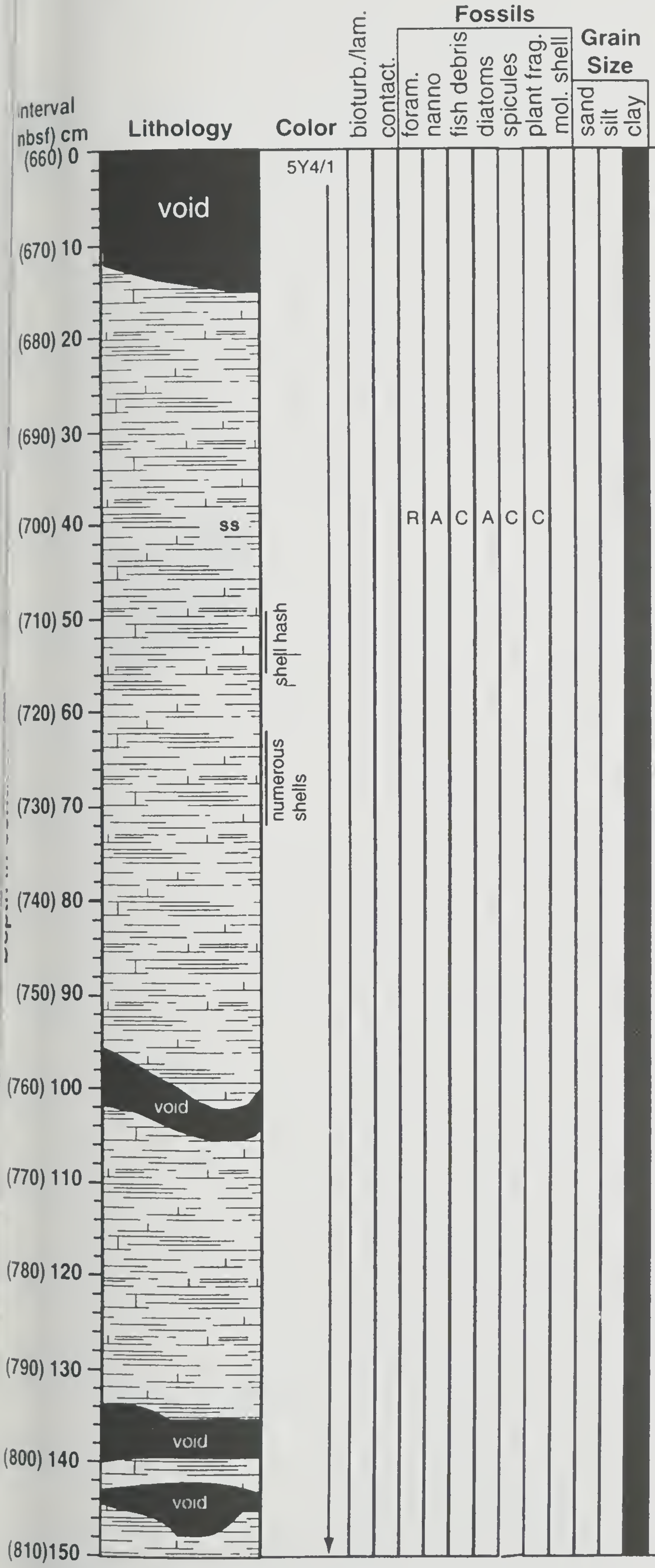
Most abundant foraminifera

PC2-3 90-92 cm
Bolivina tumida, Loxostomum pseudobeyrichi, Bolivina argentea, Uvigerina sp.

150 cm = bottom of section 3

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC2 Sect.: 2 (660-810 cmbsf) Lat.: 34 16 N Long.: 119 58 W
Water Depth: 590 m



Remarks

CLAY (siliceous, nanno-bearing): dark grenish gray (5GY4/1); homogeneous; some macorburrows; many shells (locations indicated)

Smear Slides:

ss 40 cm (dominant lithology)

A: clay; nannos; diatoms (*Coscinodiscus; Thalassiosira; Thalassionema; Cocconeis; Cyclotella; Grammatophora; Nitzschia; Paralia; Actinoptychus; Neodenticula; Pseudoeunotia; Chaetoceros* resting spores; centric girdle bands)

C: carb. debris; sponge spic.; nannos; pyrite; fish debris; palynom.

R: forams; silicoflagil.; rads

Most abundant foraminifera

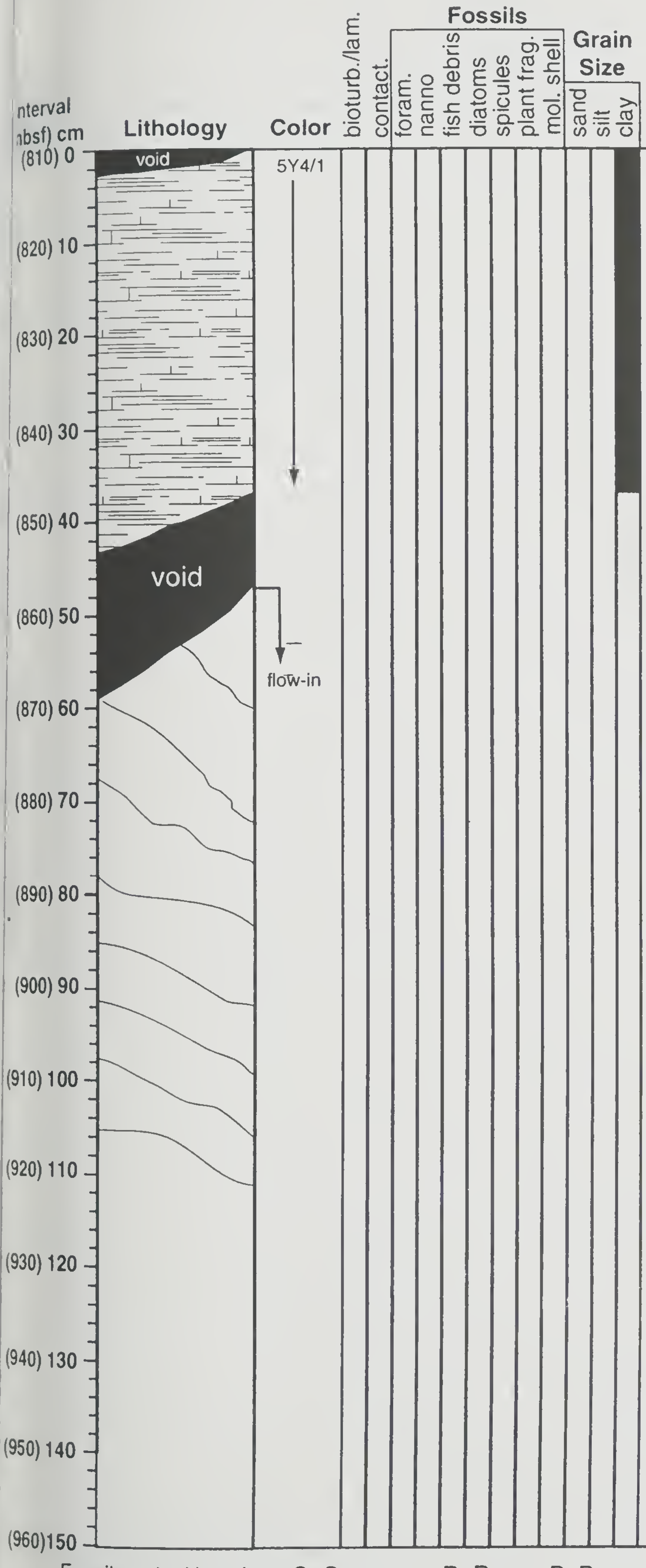
PC2-2 80-82 cm

Bolivina argentea, Uvigerina excellens, Bolivina tumida

150 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

)XMZ01MV Core: PC2 Sect.: 1 (810-960 cmbsf) Lat.: 34 16 N Long.: 119 58 W
Water Depth: 590 m



Remarks

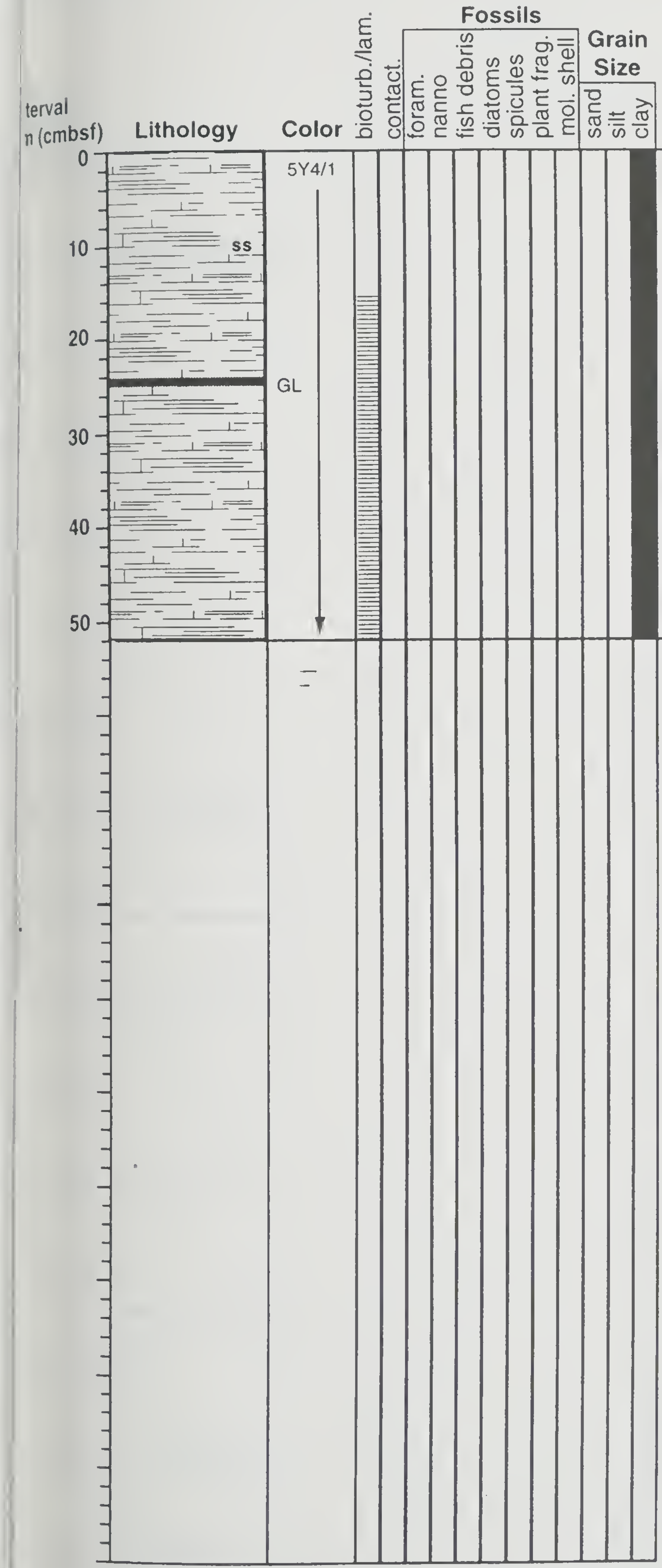
CLAY: dark grenish gray (5GY4/1); homogeneous; flow-in at bottom

150 cm = bottom of section; 960 cmbsf = bottom of core

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: TC2 Sect.: 2 (0-52 cmbsf) Lat.: 34 16 N Long.: 119 58 W
Water Depth: 590 m



Remarks

CLAY (siliceous): olive gray (5Y4/1); faintly laminated with dark (ol. blk, 5Y2/1 to dark gry, N2) laminations; mostly discontinuous and faint; top 17 cm soupy; thin light gray (N7), massive clay layer as indicated (GL)

Smear Slides:

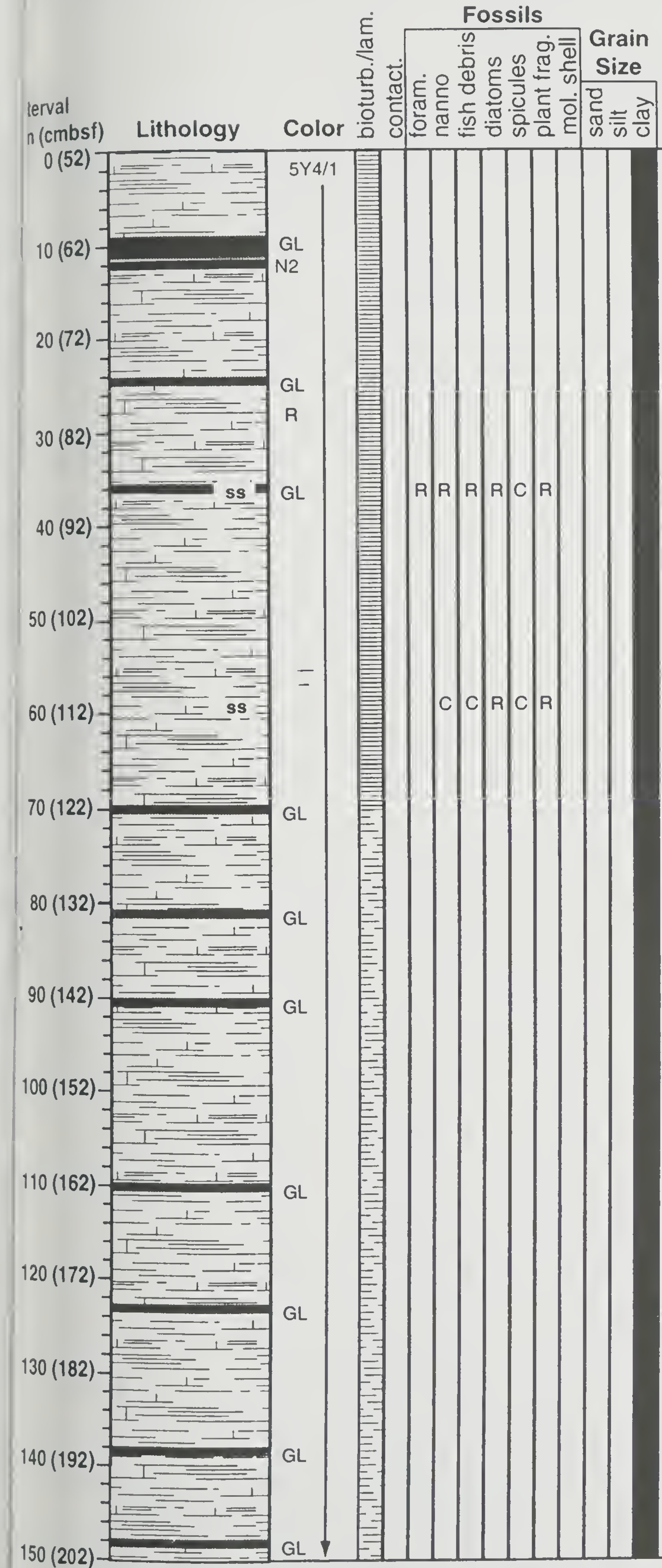
ss 10 cm (soupy top)
A: clay; diatoms (*Actinoptychus; Asterolampra; Thalassiosira; Coscinodiscus; Pseudoeunotia; Thalassionema; Cyclotella; Hemidiscus; Cocconeis; Tryblionella; Chaetoceros* resting spores; girdle bands)

C: palynom.; sponge spic.
R: pyrite; fish debris; silicoflag.; forams; rads

52 cm = bottom of section

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: TC2 Sect.: 1 (52-202 cmbsf) Lat.: 34 16 N Long.: 119 58 W
Water Depth: 590 m



Remarks

CLAY (siliceous, nanno-bearing): olive gray (5Y4/1); faintly laminated with dark (ol. blk, 5Y2/1 to dark gry, N2) laminations; mostly discontinuous and faint; very faintly laminated below ca. 70 cm; numerous thin light gray (N7), massive clay layers as indicated (GL)

Smear Slides:

ss 38 cm (gray layer)
A: clay
C: pyrite; sponge spic.
R: nannos; diatom frags; palynom.;carb, frags.; fish debris

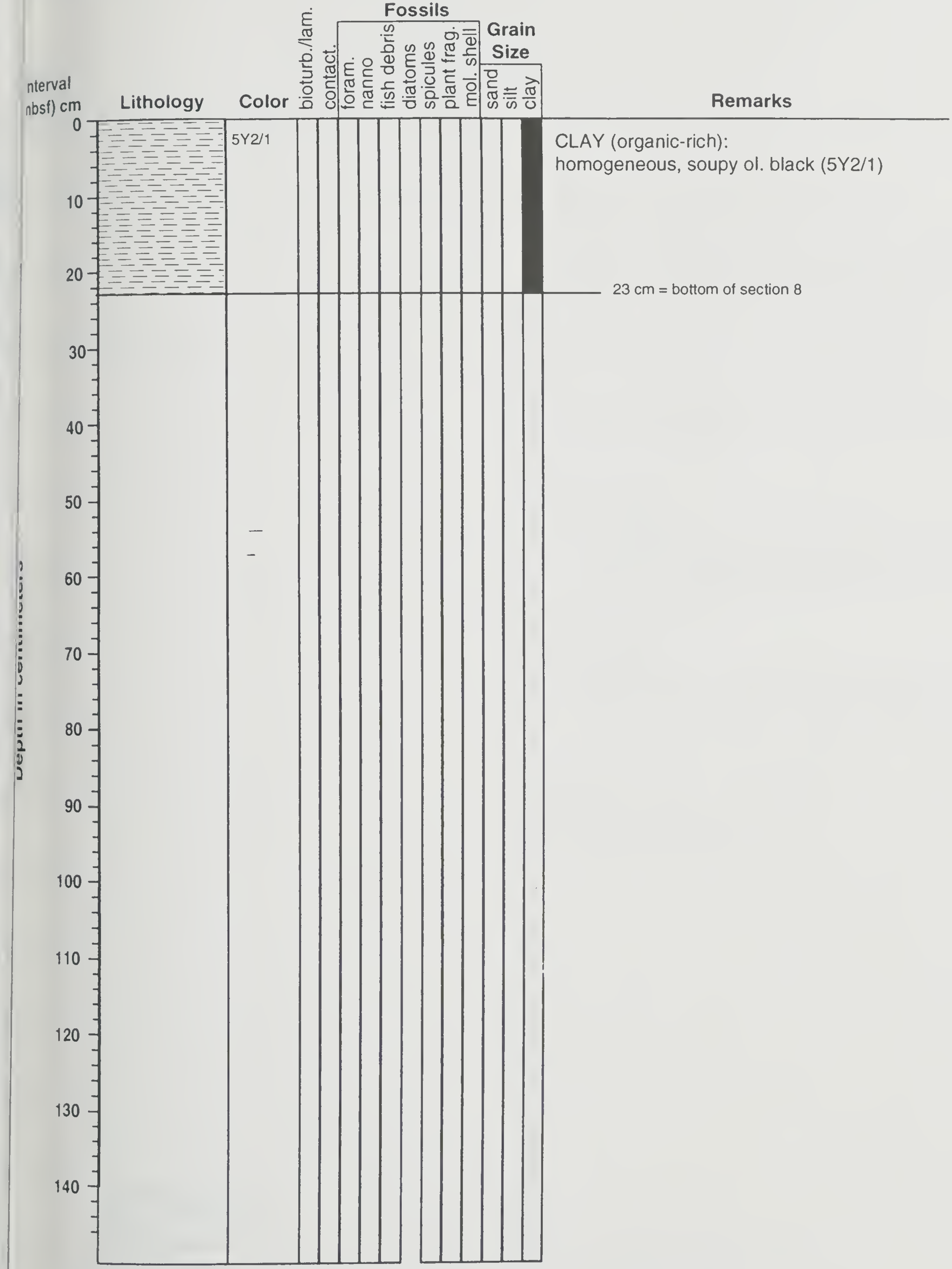
ss 60 cm (dominant lith.)
A: clay
C: pyrite; sponge spic.; diatom frags. (datoms common due to centric fragments and girdle bands. One piece of *Thalassionema* was identified); nannos; carb. debris
R: palynom.; silicoflag.

150 cm = bottom of section 1
202 cmbsf = bottom of core TC2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: PC03 Sect.: 8 (0-23 cmbsf) Lat.: 23 56.66 N Long.: 111 19.79 W

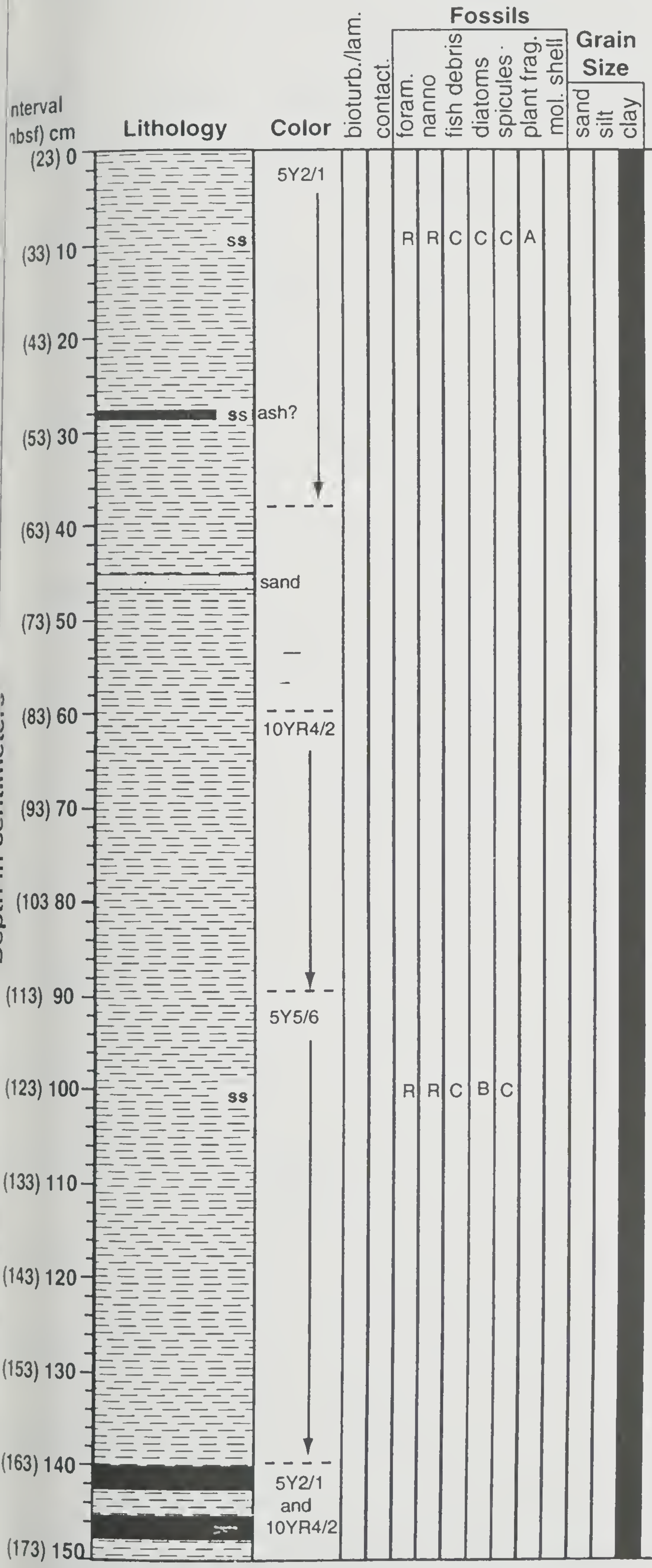
Water Depth: 502 m



CLAY (organic-rich):
homogeneous, soupy ol. black (5Y2/1)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: PC03 Sect.: 7 (23-173 cmbsf) Lat.: 23 56.66 N Long.: 111 19.79 W
Water Depth: 502 m



Remarks

CLAY (organic-rich):
dark (ol. black; 5Y2/1) with faint bands several cm thick of lighter material to 38 cm.

38-60 cm: bands of 5Y2/1 with dusky yel. brown (10YR4/2); light gray band at 28 cm has very sharp upper and lower contacts (=ash layer?); light gray sand layer at 45-47 cm

60-89 cm: more or less homogeneous (10YR4/2)

89-140 more or less homogeneous lt. ol. brown (5Y5/6)

140-150cm: interbanding of ol. black (5Y2/1) and dusky yel brown (10YR4/2)

smear slides

ss 10 cm (dark)
A: clay; organic matter
C: diatom (*Paralia; Actinoptychus; Thalassionema; Coscinodiscus; Thalassiosira; Chaetoceros* resting spores; centric girdle bands); sponge spic.; fish debris; pyrite; silicoflag.
R: nannos.; forams; rads

ss 28 cm (ash?)
A: clay; glass
C: lithic frags
R: diatoms (*Cocconeis; Epithemia; Thalassionema; Nitzschia*; centric girdle bands); forams; silicoflag.; sponge spic.; rads

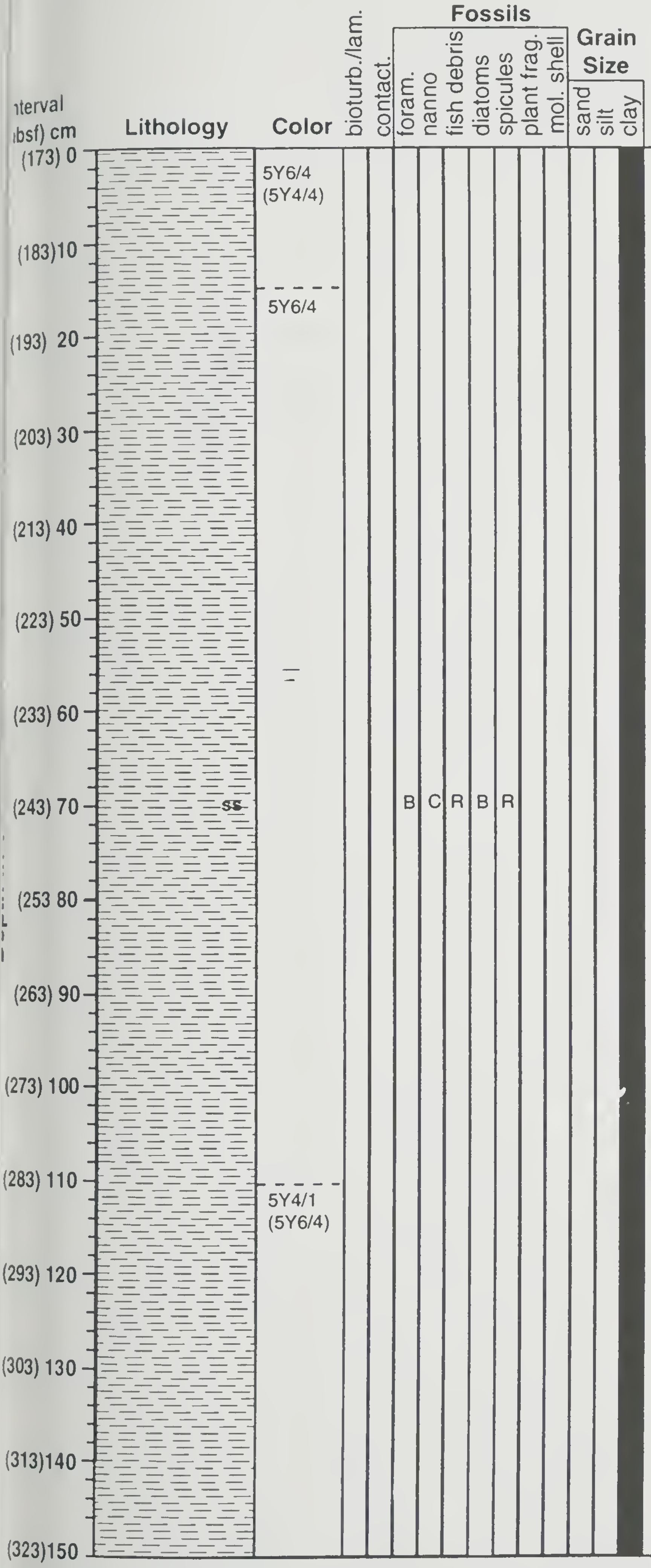
ss 100 cm (light)
A: clay
C: nannos; sponge spic.; fish debris
R: forams; rads; silicoflag.
B: diatoms

150 cm = bottom of section 7

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC03 Sect.: 6 (173-323 cmbsf) Lat.: 23 56.66 N Long.: 111 19.79 W

Water Depth: 502 m



Remarks

CLAY: burrow mottled but mostly lighter in color than sect. 7

0-15 cm: dom. dusky yellow (5Y6/4) w/ numerous burrow mottles of mod. ol. brown (5Y4/4)

15-110 cm:: dom. 5YH6/4 with only a few burrow mottles of darker (5Y4/4) material

110-150 cm: dom. ol gray (5Y4/1) w/ numerous burrow mottles of 5Y6/4

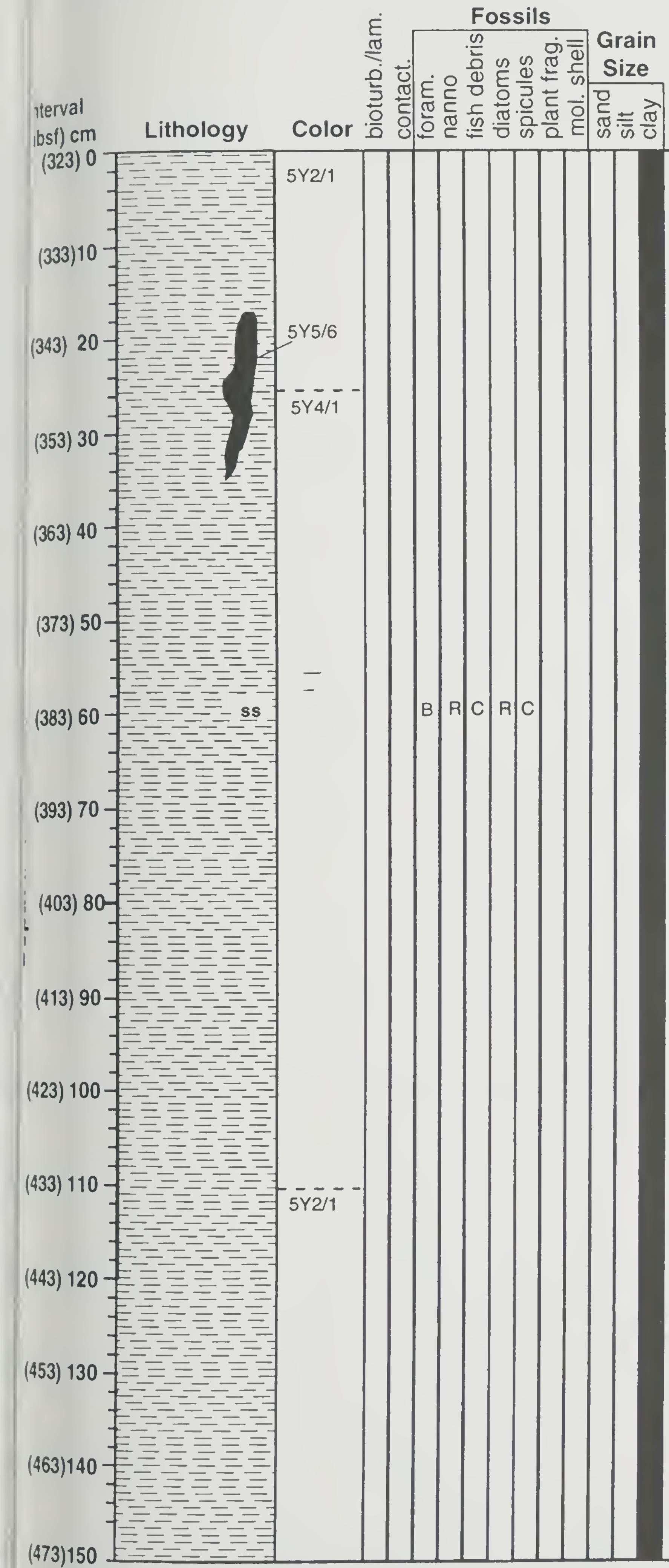
smear slides

ss 70 cm (dominant 5Y6/4 lithology)
A: clay
C: nannos; sponge spic.; fish debris; forams
R: diatoms; silicoflagil; rads

150 cm = bottom of section 6

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC03 Sect.: 5 (323-473 cmbsf) Lat.: 23 56.66 N Long.: 111 19.79 W
Water Depth: 502 m



Remarks

CLAY (organic-rich):
burrow mottled, mostly dark (ol. black, 5Y2/1) and ol. gray (5Y4/1) w/ lighter burrow mottles (lt. ol. brown, 5Y5/6); homogen. below 134 cm

smear slides

ss 60 cm (dominant 5Y6/4 lithology)

A: clay; organic matter

C: sponge spic.; fish debris; pyrite

R: nannos; diatoms (*Grammatophora; Paralia; Azpeitia; Cocconeis;* centric fragments & girdle bands); discoasters; silicoflag.; rads

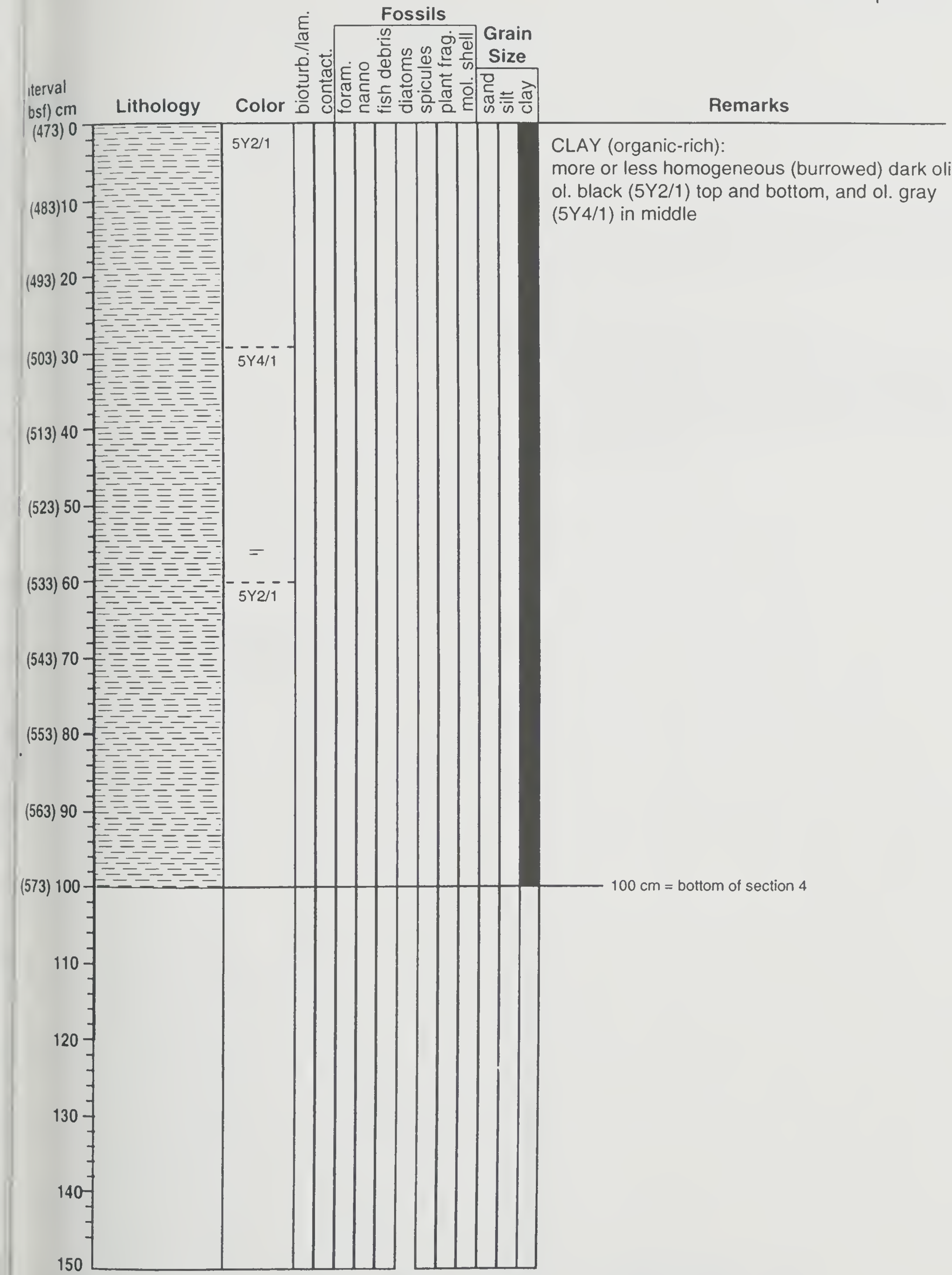
B: forams

150 cm = bottom of section 5

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC03 Sect.: 4 (473-573 cmbsf) Lat.: 23 56.66 N Long.: 111 19.79 W
Water Depth: 502 m

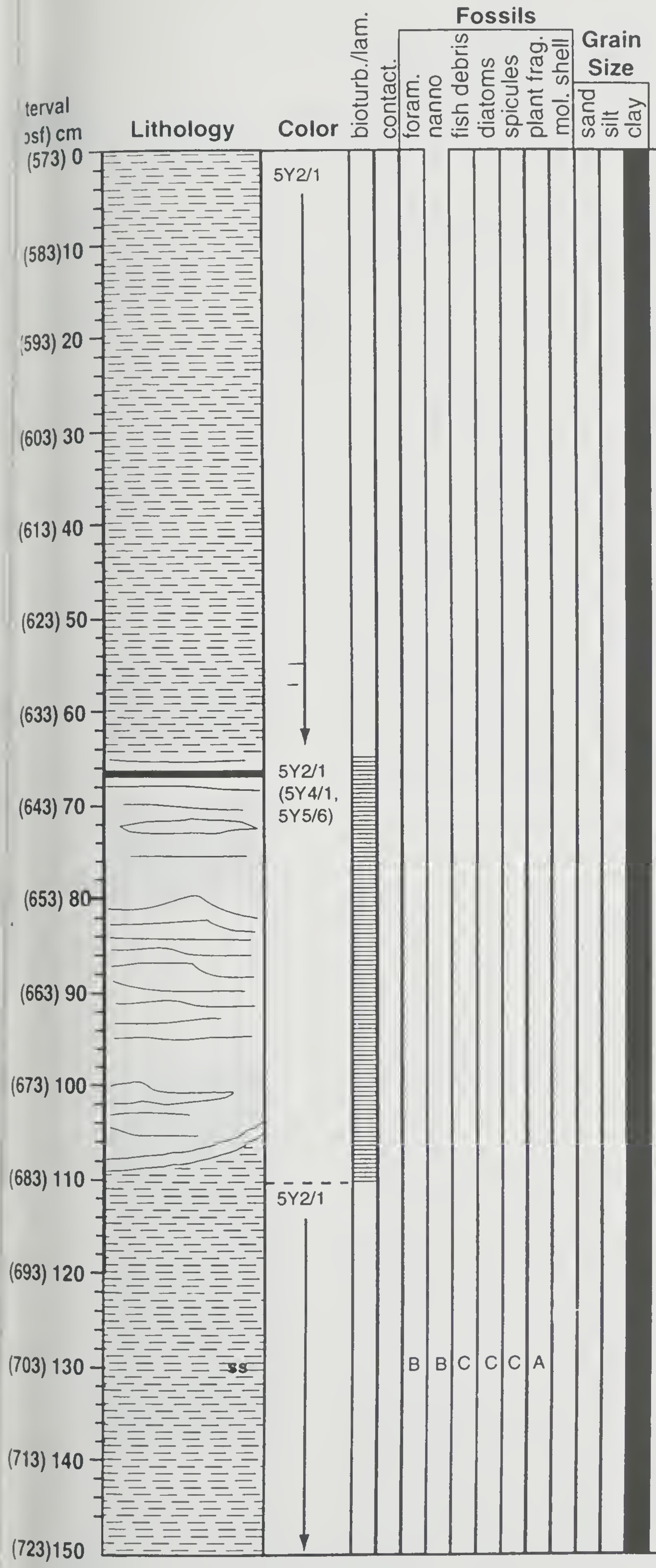


CLAY (organic-rich):
more or less homogeneous (burrowed) dark olive clay;
ol. black (5Y2/1) top and bottom, and ol. gray
(5Y4/1) in middle

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC03 Sect.: 3 (573-723 cmbsf) Lat.: 23 56.66 N Long.: 111 19.79 W

Water Depth: 502 m



Remarks

CLAY (organic-rich):
0-65 cm: mostly bioturbated dark (ol. black, 5Y2/1) w/ lighter burrow mottles (ol. gray, 5Y4/1 and lt. ol. brown, 5Y5/6); homogen. below 110 cm. However, between 65 and 110 cm there appears to be an interval in which original lamination has not been completely destroyed by bioturbation.

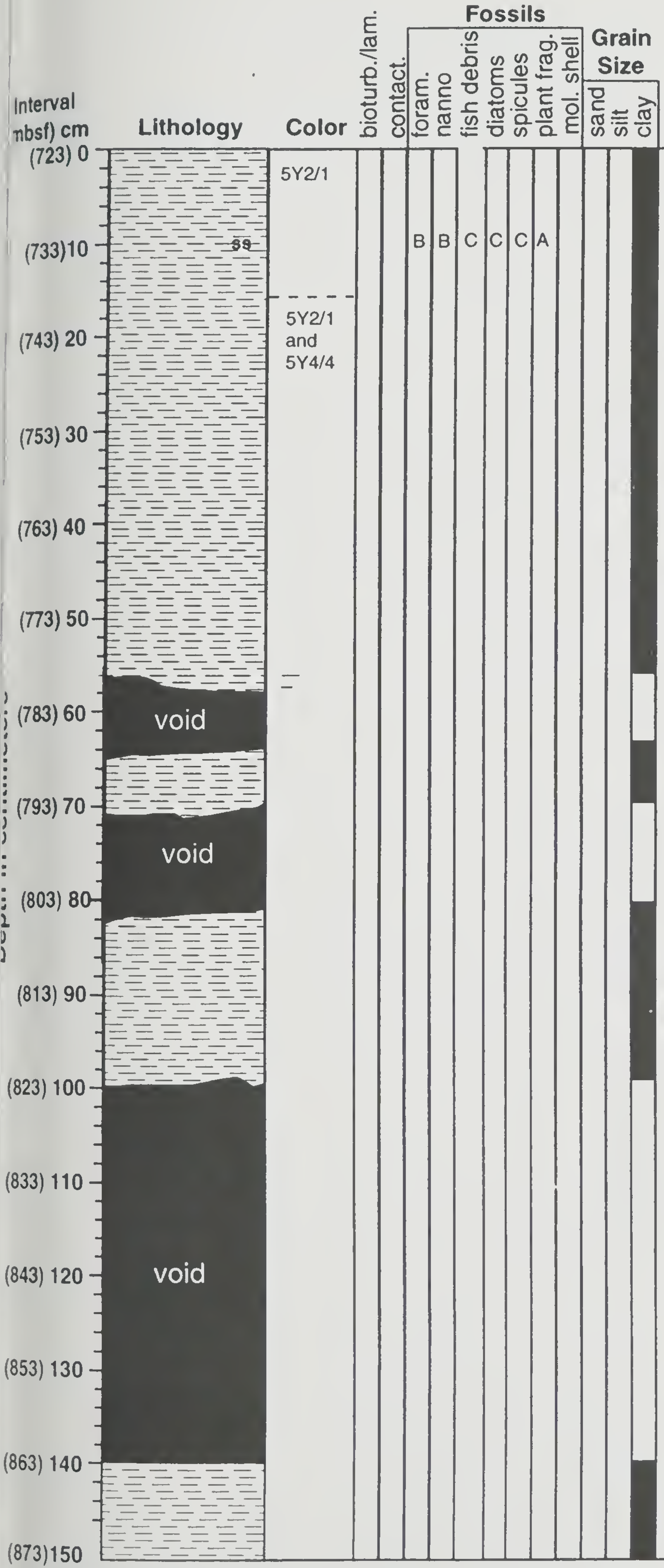
smear slides

ss 130 cm (dominant 5Y2/1 lithology)
A: clay; organic matter
C: diatoms (*Cyclotella; Lyrella; Thalassiosira; Coscinodiscus; Azpeitia; Paralia; Thalassionema; Nitzschia; Actinoptychus;Chaetoceros* resting spores; centric girdle bands); sponge spic.; fish debris; pyrite
R: silicoflag.; discoasters; rads
B: forams; nannos

150 cm = bottom of section 3

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: PC03 Sect.: 2 (723-873 cmbsf) Lat.: 23 56.66 N Long.: 111 19.79 W
Water Depth: 502 m



Remarks

CLAY (organic-rich):
0-16: homogeneous; ol. black, 5Y2/1
16-55: burrow mottling of 5Y2/1 and mod. ol. brown (5Y4/4)
55-150: voids and blocks of clay created by flow-in (see sect.

smear slides

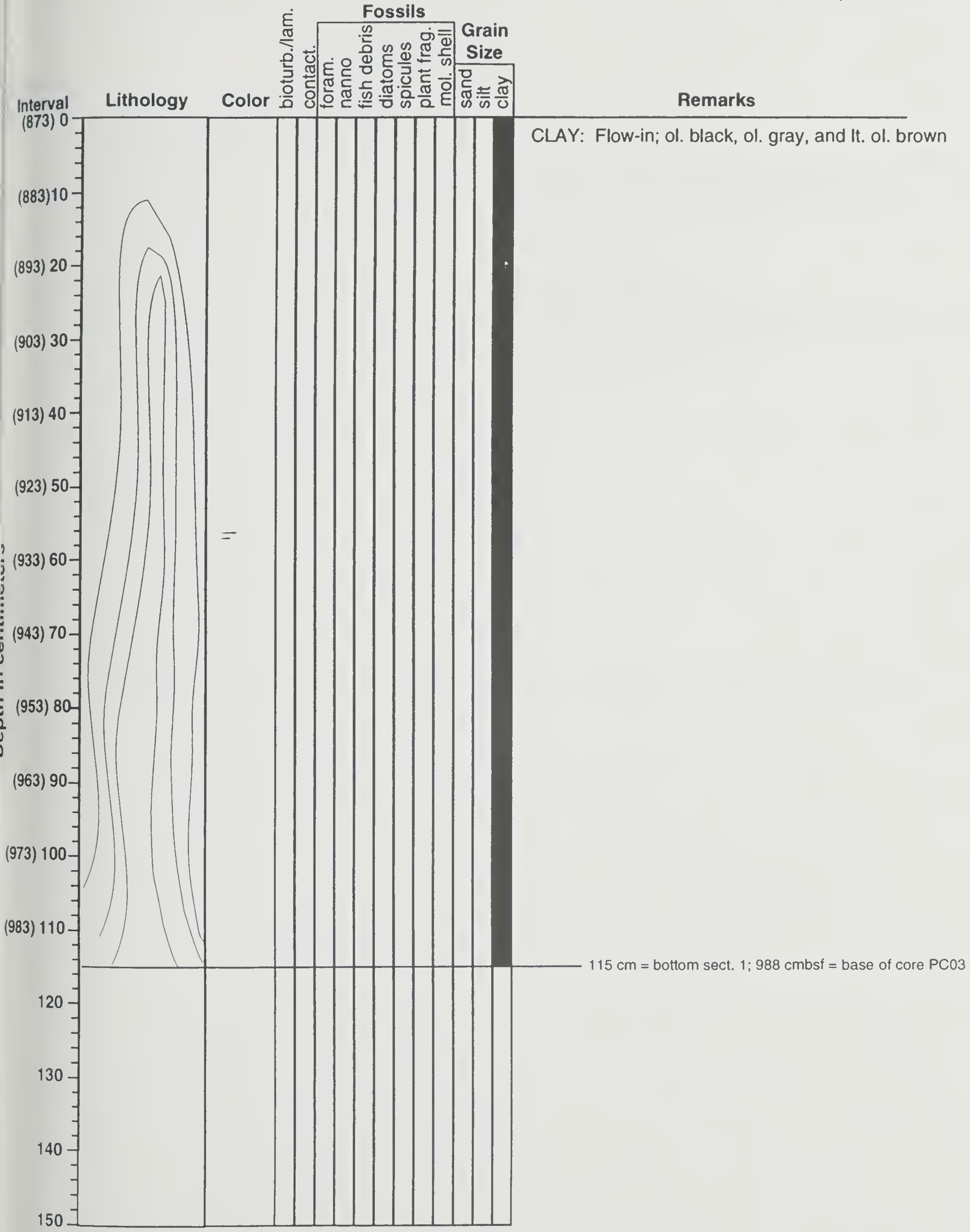
ss 10 cm (dominant lithology)
A: clay; organic matter
C: diatoms *(Cyclotella; Triceratium; Thalassiosira; Pseudoeunotia; Azpeitia; Paralia; Thalassionema; Nitzschia; Actinoptychus; Diploneis; Chaetoceros* resting spores; centric girdle bands); sponge spic.; fish debris; pyrite
R:silicoflag.; rads; discoasters
B: forams; nannos

150 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC03 Sect.: 1 (873-988 cmbsf) Lat.: 23 56.66 N Long.: 111 19.79 W

Water Depth: 502 m



CLAY: Flow-in; ol. black, ol. gray, and lt. ol. brown

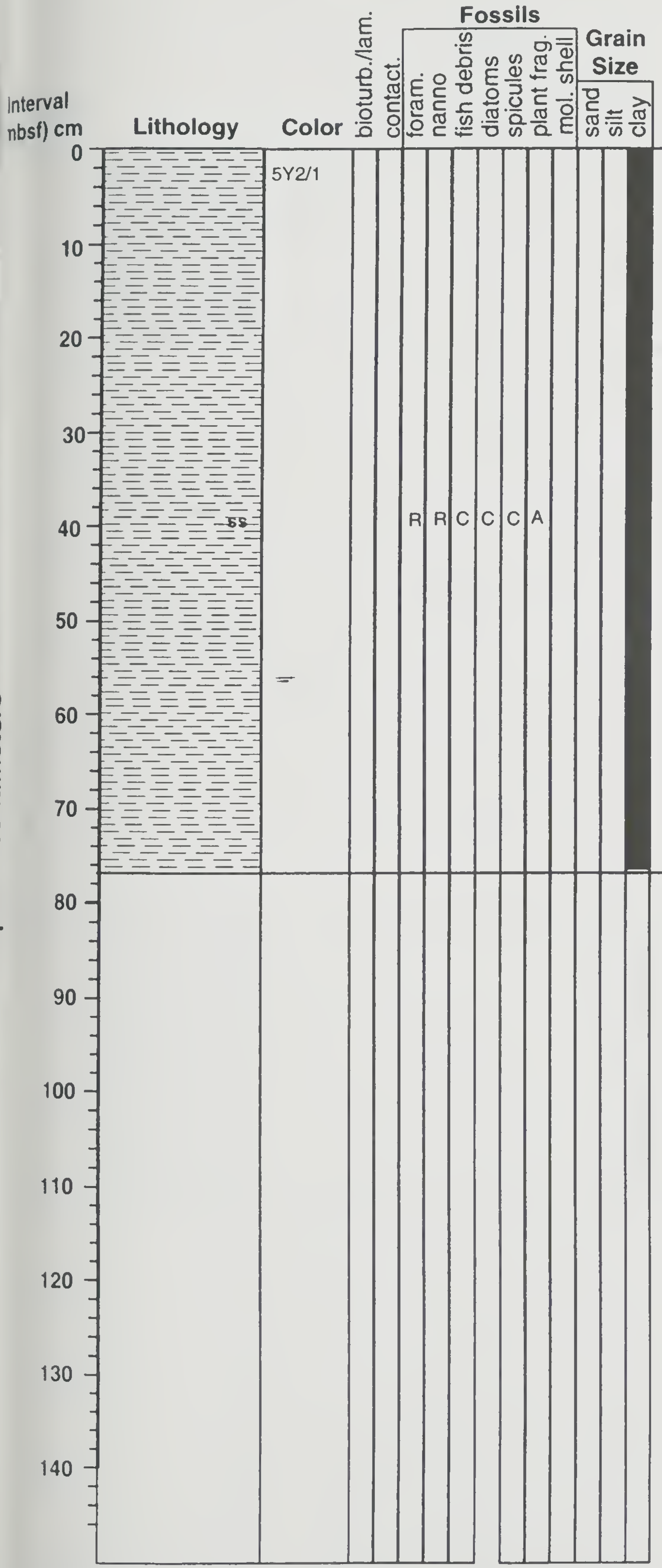
115 cm = bottom sect. 1; 988 cmbsf = base of core PC03

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: TC03 Sect.: 1 (0-77 cmbsf) Lat.: 23 56.66 N Long.: 111 19.79 W

Water Depth: 502 m



Remarks

CLAY (organic-rich):
more or less homogeneous ol. black (5Y2/1) with faint bands several cm thick of lighter material (ca. dusky yel. brown, 10YR2/2) but surface was severly disturbed during splitting

smear slides

ss 40 cm (dominant lithology)

A: clay; organic matter

C: diatom (*Paralia; Cyclotella; Actinoptychus; Thalassionema; Lyrella; Coscinodiscus; Nitzschia; Chaetoceros* resting spores girdle bands); sponge spic.; fish debris; silicoflag.

R: nannos.; forams; rads

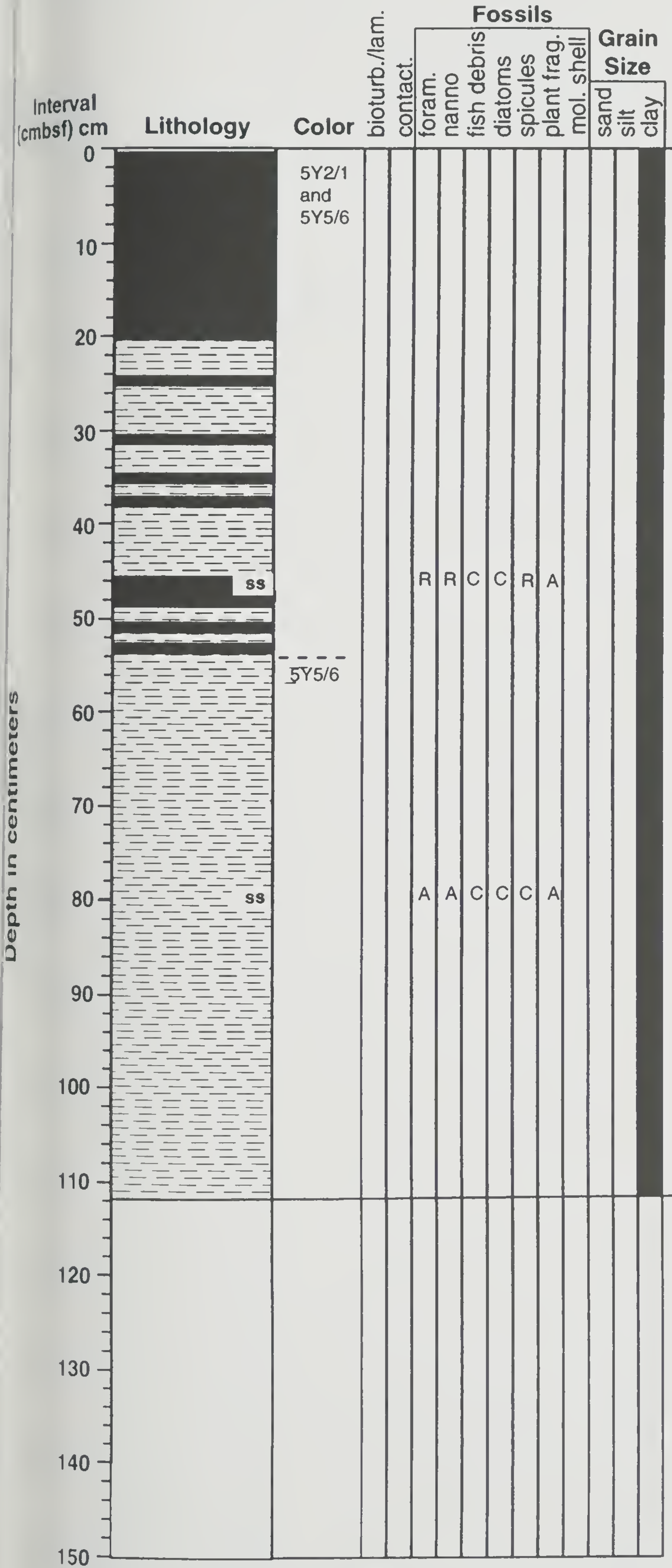
77 cm = bottom of section 1 and base of core TC03

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: PC04 Sect.: 8 (0-112 cmbsf) Lat.: 23 37.85 N Long.: 111 09.00 W

Water Depth: 728 m



Remarks

CLAY (organic-rich; nanno-, foram-bearing): basic stratigraph is cm-scale interlayering of light and dark bands. there are some slight variations in color, but the basic colors are:

■ dark: ol black (5Y2/1)

□ light: lt. ol. brown (5YR5/6)

smear slides

ss 47 cm (dark)

A: clay; organic matter

C: diatoms; pyrite; sponge spic.

R: forams; nannos; rads

ss 80 cm (light)

A: clay; forams; nannos; organic matter

C:; fish debris;pyrite; sponge spic.; diatoms

R: rads

Most abundant foraminifera

PC4-8 45-47 cm:

Buliminella tenuata, Bolivina seminuda, Bolivina sp.

PC4-8 55-57 cm:

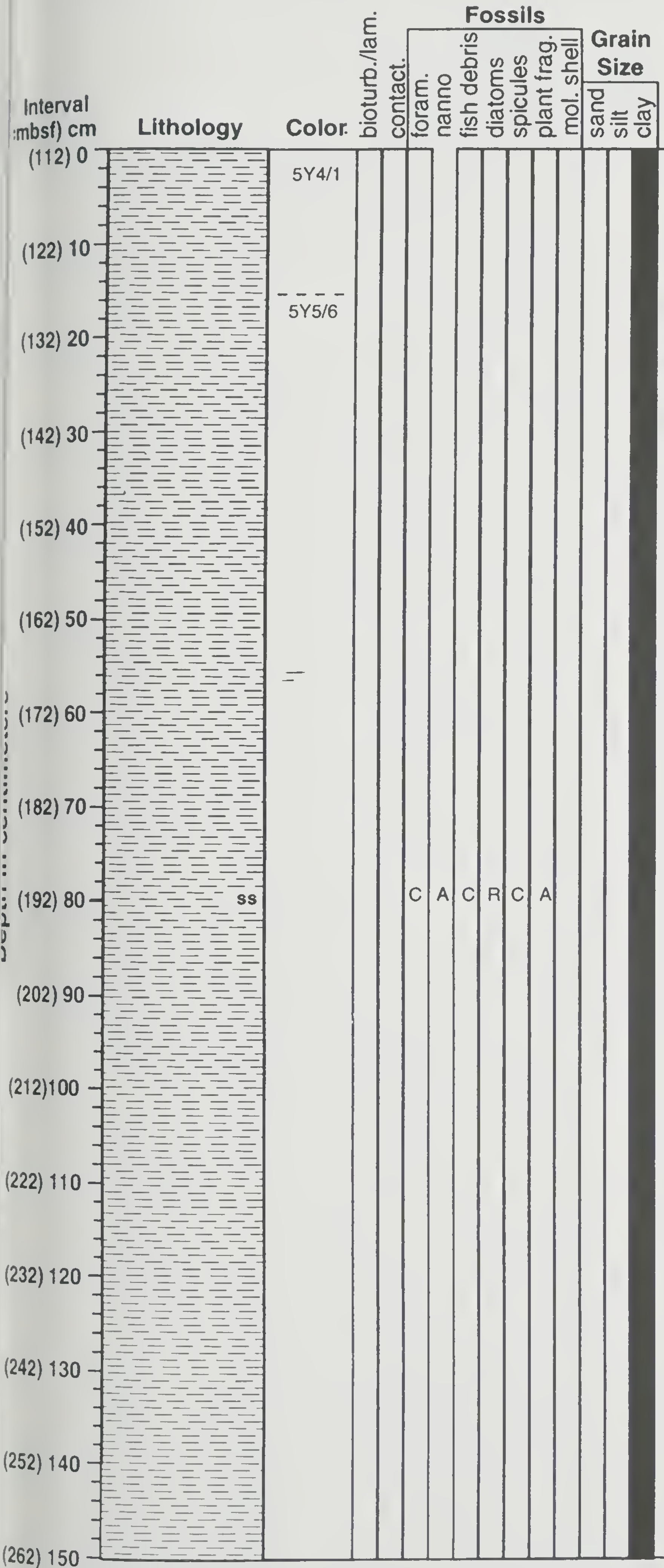
Bolivina seminuda, Buliminella tenuata, Bolivina sp., Bolivina argentea, Uvigerina sp.

112 cm = bottom of sect. 8

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC04 Sect.: 7 (112-262 cmbsf) Lat.: 23 37.85 N Long.: 111 09.00 W
Water Depth: 728 m



CLAY (organic-rich; nanno-, foram-bearing):
0-15 cm: predom homogen. ol. gray (5Y4/1)
15-150 cm: lt. ol. brown (5Y5/6), bioturb. w/ large burrow mottles of ol. gray (5Y4/1)

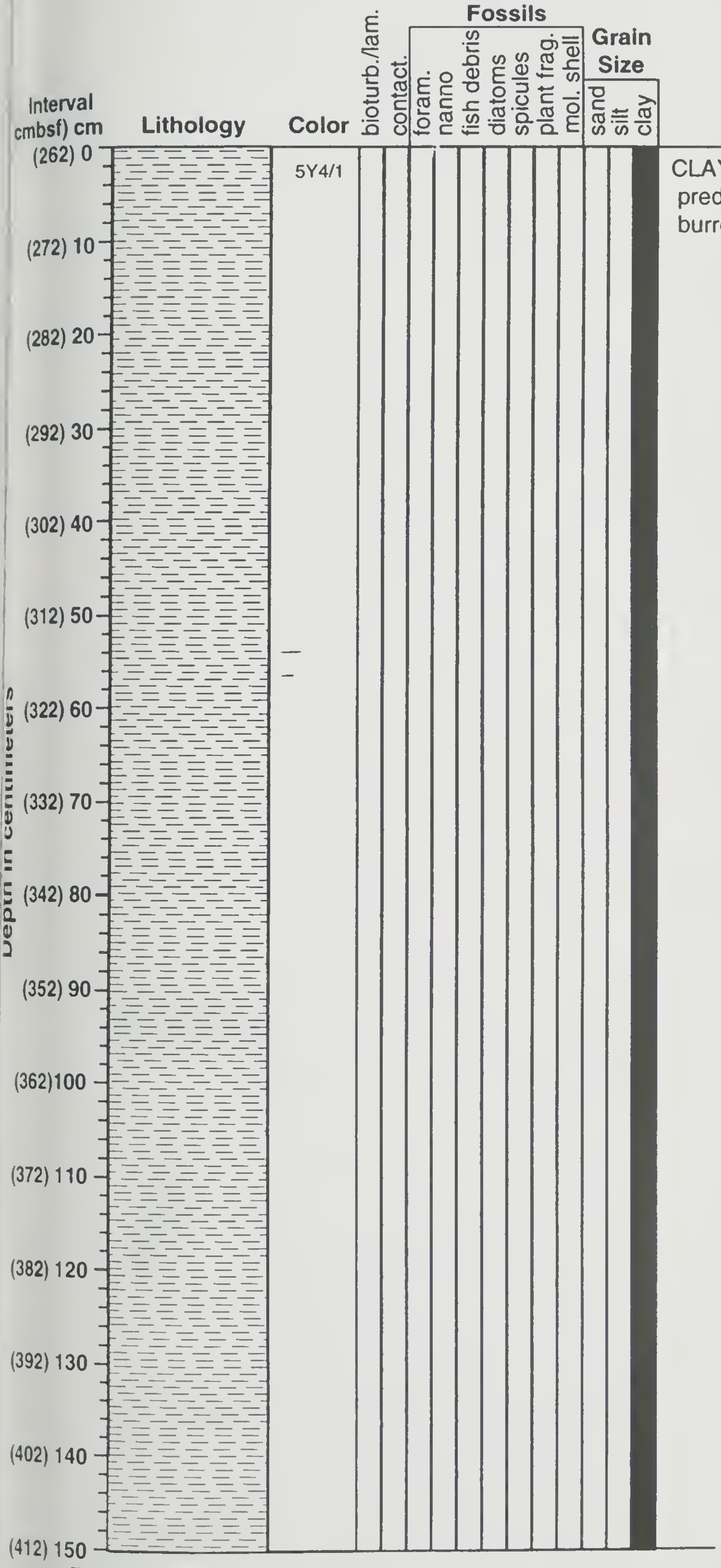
smear slides

ss 80 cm (light)
A: clay; nannos; organic matter
C: forams; fish debris;pyrite; sponge spic.
R: diatoms

150 cm = bottom of sect. 7

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC04 Sect.: 6 (262-412 cmbsf) Lat.: 23 37.85 N Long.: 111 09.00 W
Water Depth: 728 m



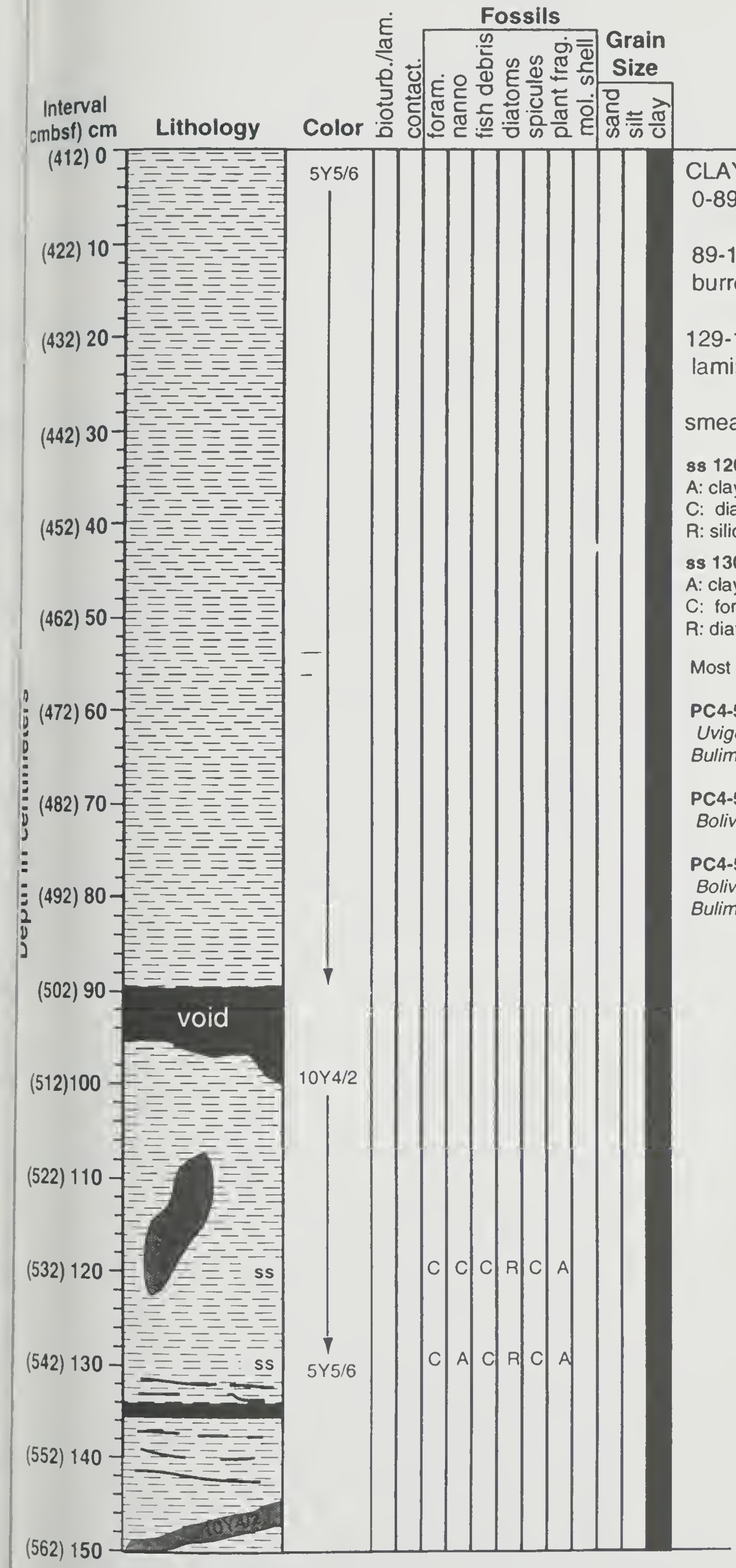
CLAY (organic-rich; nanno-, foram-bearing): predom homogen. lt. ol. brown (5Y5/6), bioturb. w/ large burrow mottles of ol. gray (5Y4/1)

150 cm = bottom of sect. 6

Fossils: A=Abundant C=Common R=Rare B=Barren s.s.=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: PC04 Sect.: 5 (412-562 cmbsf) Lat.: 23 37.85 N Long.: 111 09.00 W

Water Depth: 728 m



150 cm = bottom of sect. 5

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

Remarks

CLAY (organic-rich; nanno-, foram-bearing):
0-89 cm: lt. ol. brown (5Y5/6)

89-129 cm: bioturb. 10Y4/2 w/ large burrow mottle of ol. gray (5Y5/6)

129-150 cm: predom. 5Y5/6 but with hints of darker (10Y4/2) lamination

smear slides

ss 120 cm (dark)
A: clay; organic matter
C: diatoms; fish debris;pyrite; sponge spic.
R: silicofglag.; nannos; forams; rads

ss 130 cm (light)
A: clay; nannos; organic matter
C: forams; fish debris; pyrite; sponge spic.
R: diatoms

Most abundant foraminifera

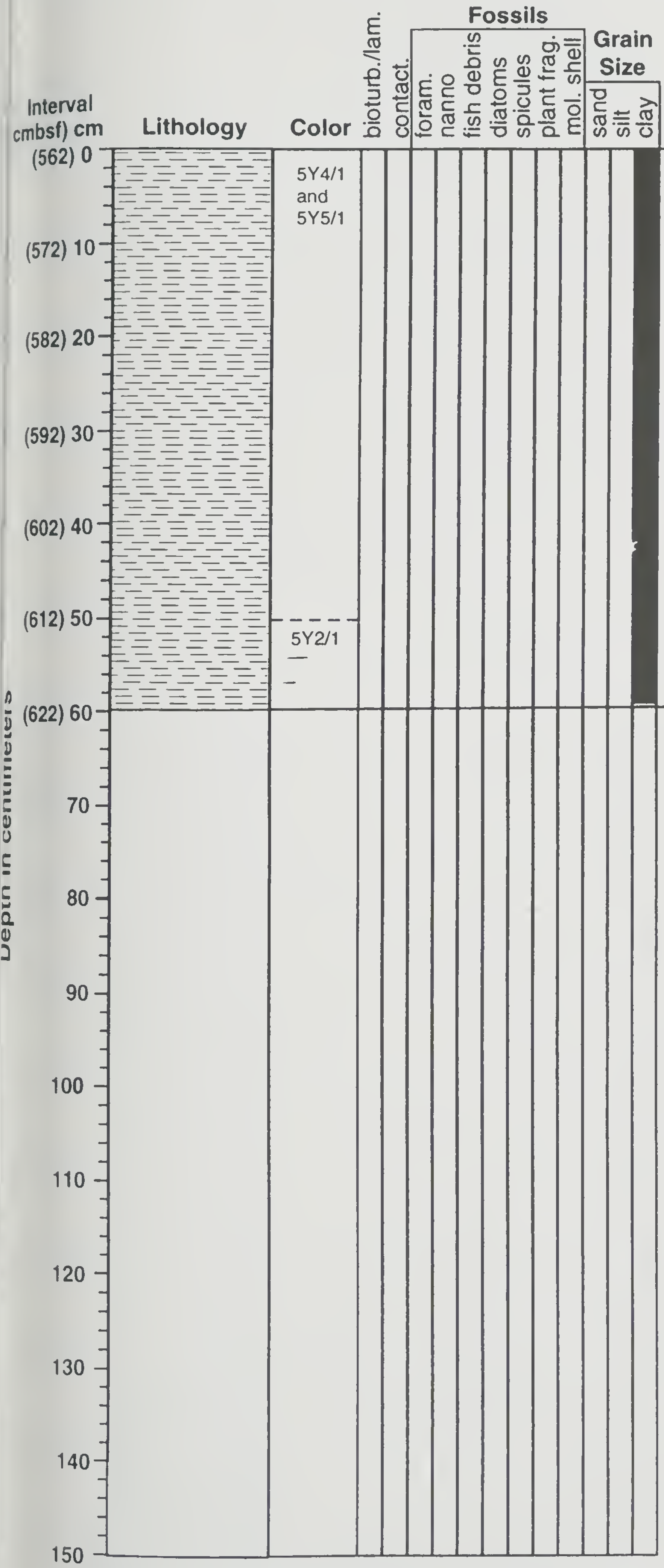
PC4-5 125-127 cm:
Uvigerina sp. Bolivina seminuda, Bolivina sp., Bolivina argentea, Buliminella tenuata

PC4-5 133-135 cm:
Bolivina seminuda, Bolivina sp., Buliminella tenuata

PC4-5 138-140 cm:
Bolivina argentea, Bolivina spissa, Uvigerina sp., Globobulimina sp., Buliminella tenuata, Bolivina seminuda

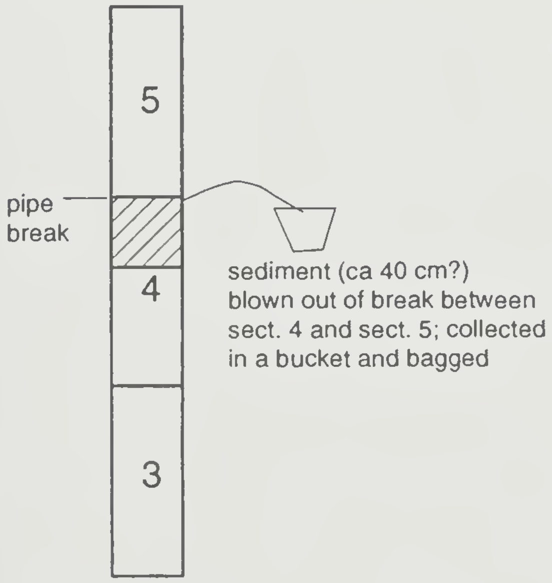
OXMZ01MV Core: PC04 Sect.: 4 (562-622 cmbsf) Lat.: 23 37.85 N Long.: 111 09.00 W

Water Depth: 728 m



CLAY (organic-rich):
predom homogen. ol. gray (5Y4/1), w/ lighter burrow mottles (5Y5/1) at base

60 cm = bottom of sect. 4



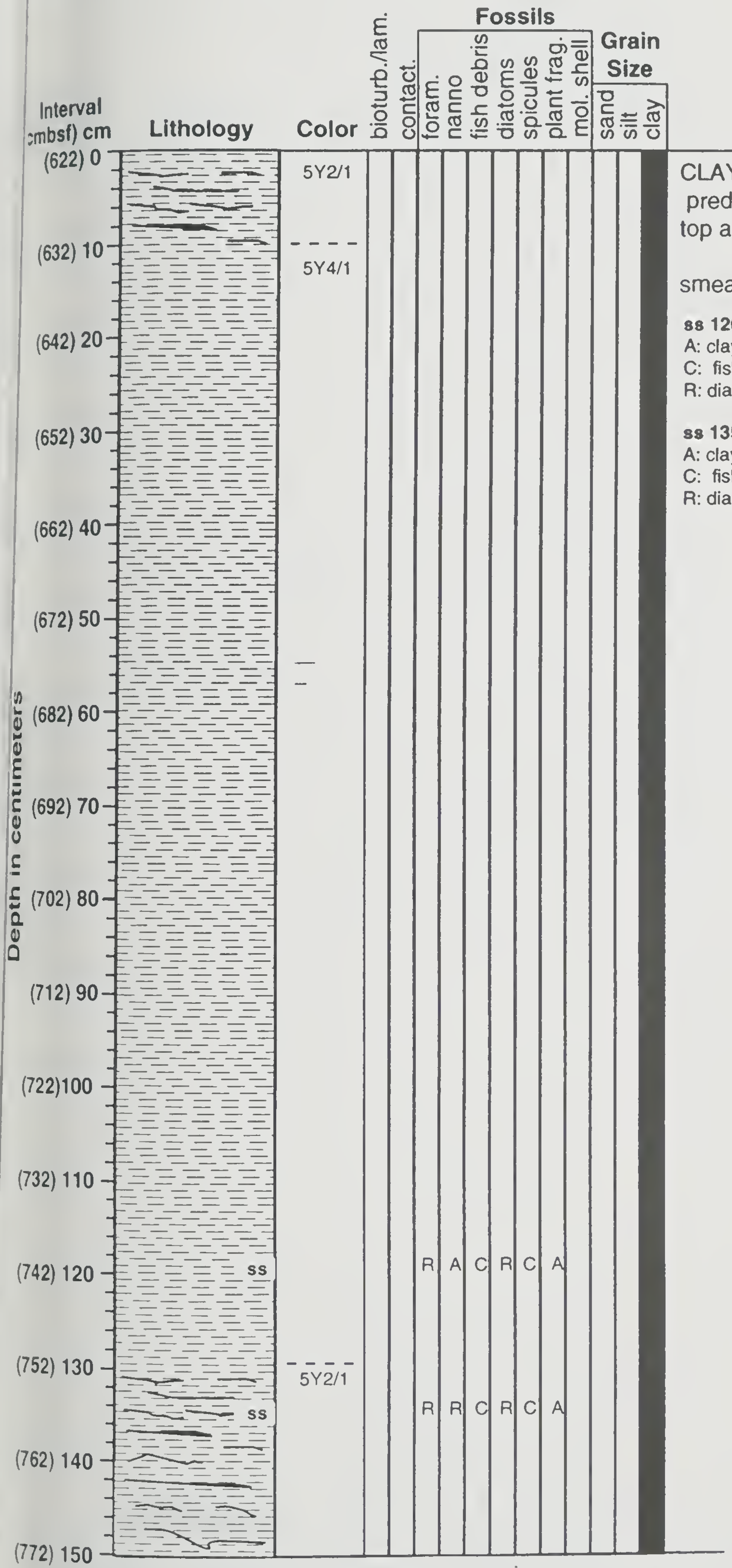
sediment (ca 40 cm?) blown out of break between sect. 4 and sect. 5; collected in a bucket and bagged

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC04 Sect.: 3 (622-772 cmbsf) Lat.: 23 37.85 N Long.: 111 09.00 W

Water Depth: 728 m



Remarks

CLAY (organic-rich):
predom homogen. ol. gray (5Y4/1) w/ some burrow mottles; top and bottom are ol. black (5Y2/1) with hints of relic banding

smear slides

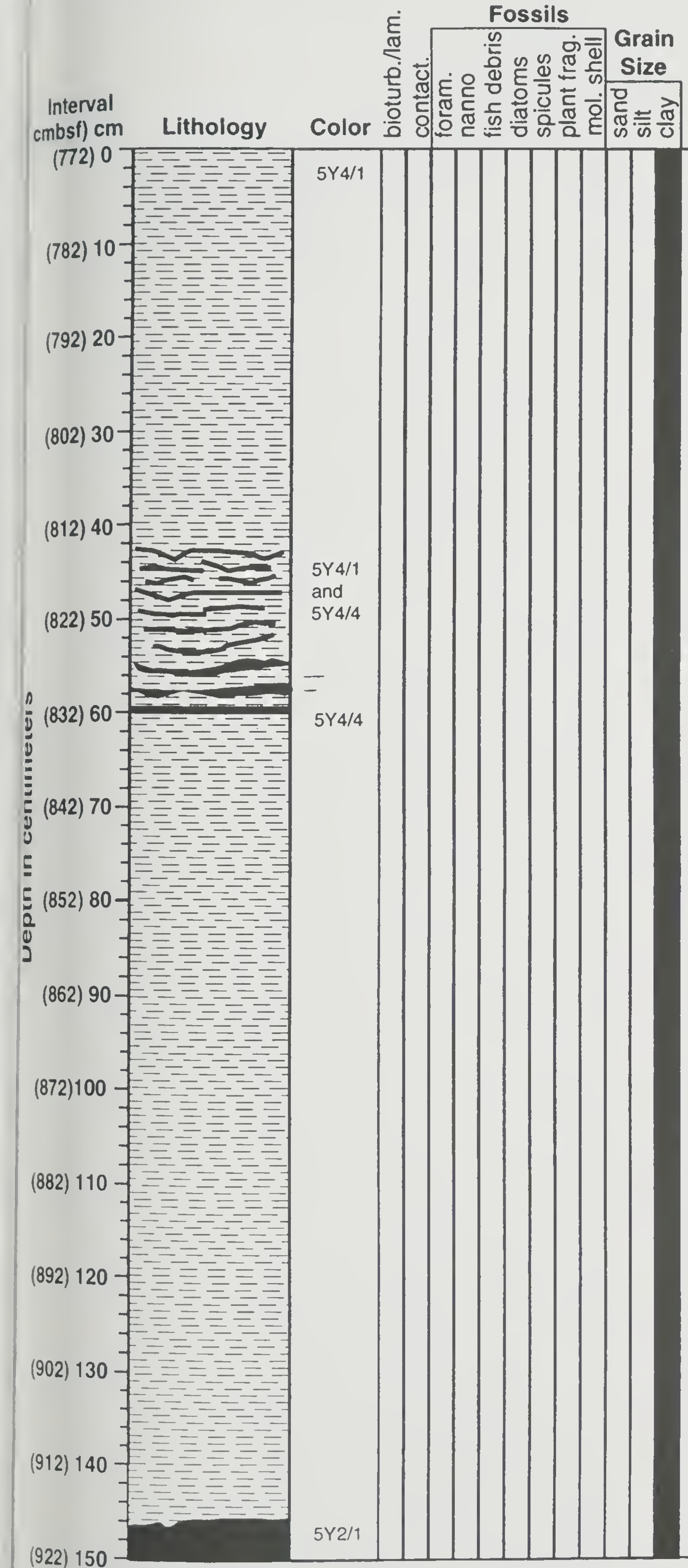
ss 120 cm (light)
A: clay; nannos; organic matter
C: fish debris; pyrite; sponge spic.
R: diatoms; forams; silicoflag.; rads

ss 135 cm (dark)
A: clay; organic matter
C: fish debris; pyrite; sponge spic.
R: diatoms; nannos; forams; silicoflag.; rads

150 cm = bottom of sect. 3

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC04 Sect.: 2 (772-922 cmbsf) Lat.: 23 37.85 N Long.: 111 09.00 W
Water Depth: 728 m



Remarks

CLAY (organic-rich):
predom homogen. mod. ol. brown (5Y4/4) w/ large burrow mottles of ol. gray (5Y4/1)

42-60 cm: alternating black (5Y2/1) and 5Y4/4 banding only slightly disrupted by bioturbation

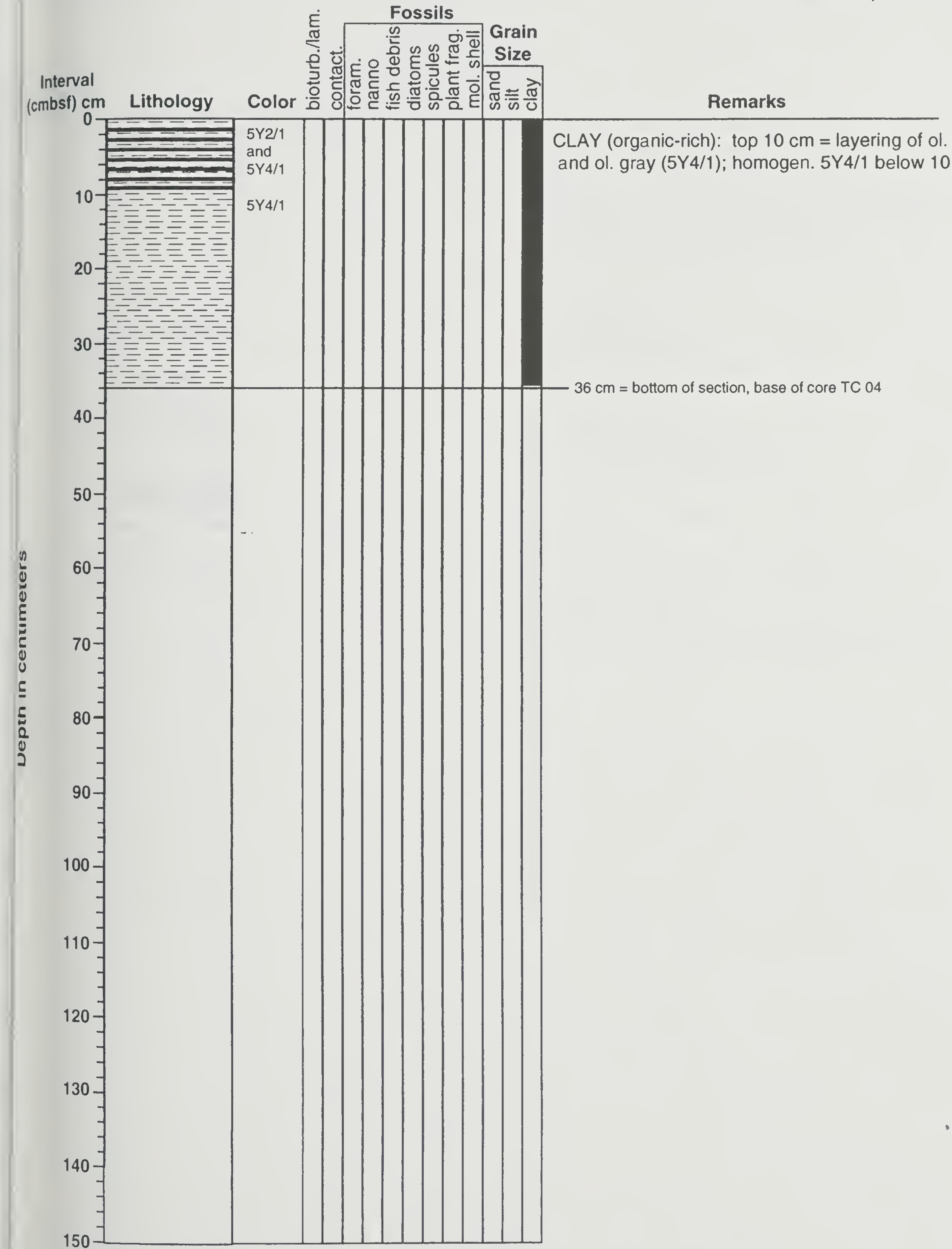
60-146 cm: more or less homogeneous 5Y4/4

146-150 cm: dark, faintly banded 5Y2/1

150 cm = bottom of sect. 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: TC04 Sect.: 1 (0-36 cm) Lat.: 23 32.85 N Long.: 111 09.00 W
Water Depth: 728 m



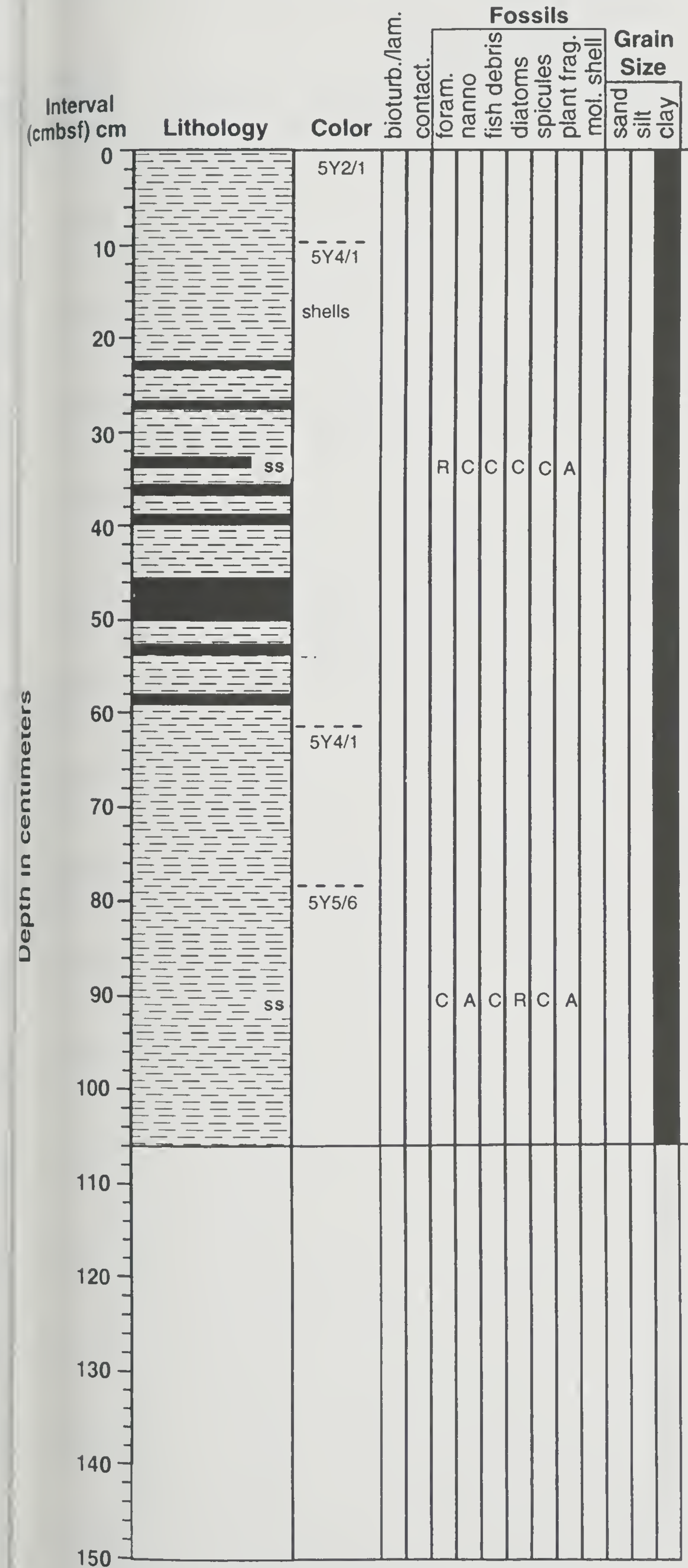
CLAY (organic-rich): top 10 cm = layering of ol. black (5Y2/1) and ol. gray (5Y4/1); homogen. 5Y4/1 below 10 cm

36 cm = bottom of section, base of core TC 04

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC05 Sect.: 8 (0-106 cmbsf) Lat.: 23 28 N Long.: 111 35.92 W

Water Depth: 705 m



Remarks

CLAY (organic-rich; nanno-bearing):
0-10 cm: homogenous, soupy ol. black (5Y2/1)
10-62 cm: cm-scale interlayering of light(ol. gray, 5Y4/1) and dark (5Y2/1) bands, as indicated by ■
62-78 cm: 5Y4/1 with faint banding
78-106 cm: homogeneous lt. ol. brown (5Y5/6)

smear slides

ss 34 cm (dark)
A: clay; organic matter
C: diatoms; pyrite; sponge spic.; nannos
R: forams; rads

ss 90 cm (light)
A: clay; nannos; organic matter
C:; fish debris;pyrite; sponge spic.;
R: rads; diatoms; silicoflag.; forams

Most abundant foraminifera

PC5-8 0-2 cm
Bolivina seminuda, Bolivina sp., Buliminella tenuata

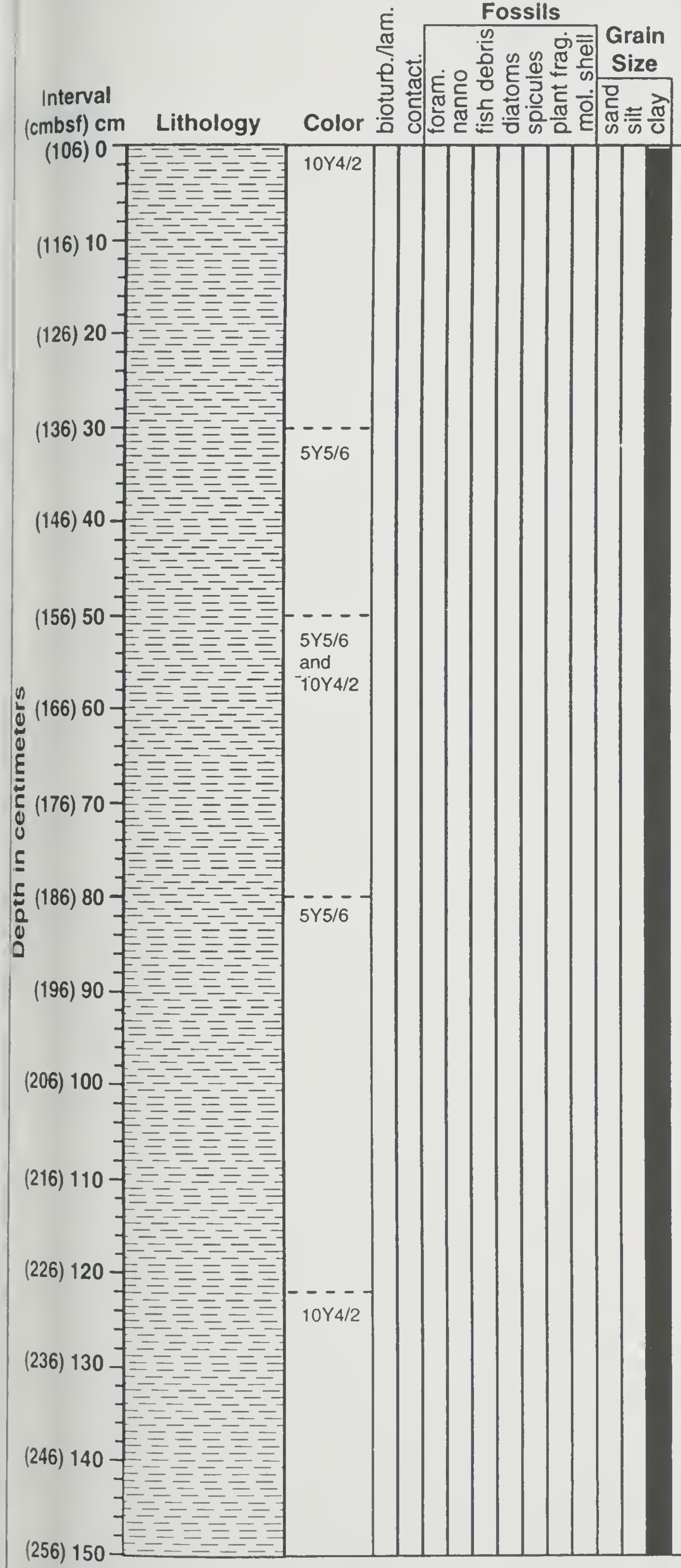
PC5-8 101-103 cm
Bolivina seminuda, Bolivina sp., Buliminella tenuata, Bolivina argentea, Bolivina spissa, Uvigerina sp., Pyrgo sp., Cassidulina sp.

106 cm = bottom of sect. 8

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC05 Sect.: 7 (106-256 cmbsf) Lat.: 23 28 N Long.:111 35.92 W

Water Depth: 705 m



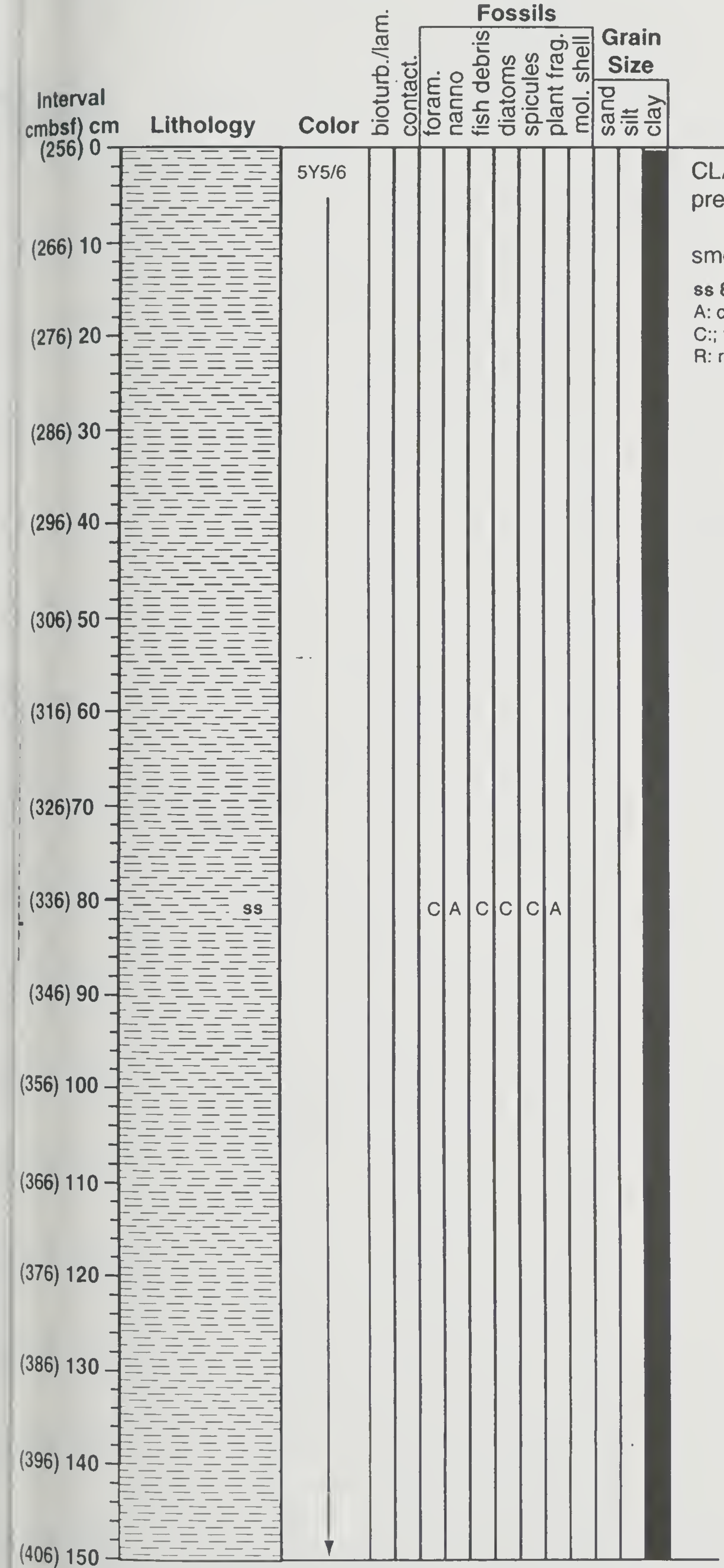
Remarks

CLAY (organic-rich; nanno-bearing):
0-30 cm: predom. homogen. to slightly burrow mottled grayish ol. (10Y4/2)
30-50 cm: predom. homogen. to slightly burrow mottled lt. ol. brown (5Y5/6) w/ darker burrow mottles (grayish ol., 10Y4/2
50-80 cm: predom. lt. ol. brown (5Y5/6) w/ 10Y4/2 burrow mottles
80-122 cm: predom. homogen. to slightly burrow mottled 5Y5/6
122-150 cm: homogen. 10Y4/2

150 cm = bottom of sect. 7

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC05 Sect.: 6 (256-406 cmbsf) Lat.: 23 28 N Long.:111 35.92 W
Water Depth: 710 m



Remarks

CLAY (organic-rich; nanno-bearing):
predom. homogen. lt. ol. brown (5Y5/6)

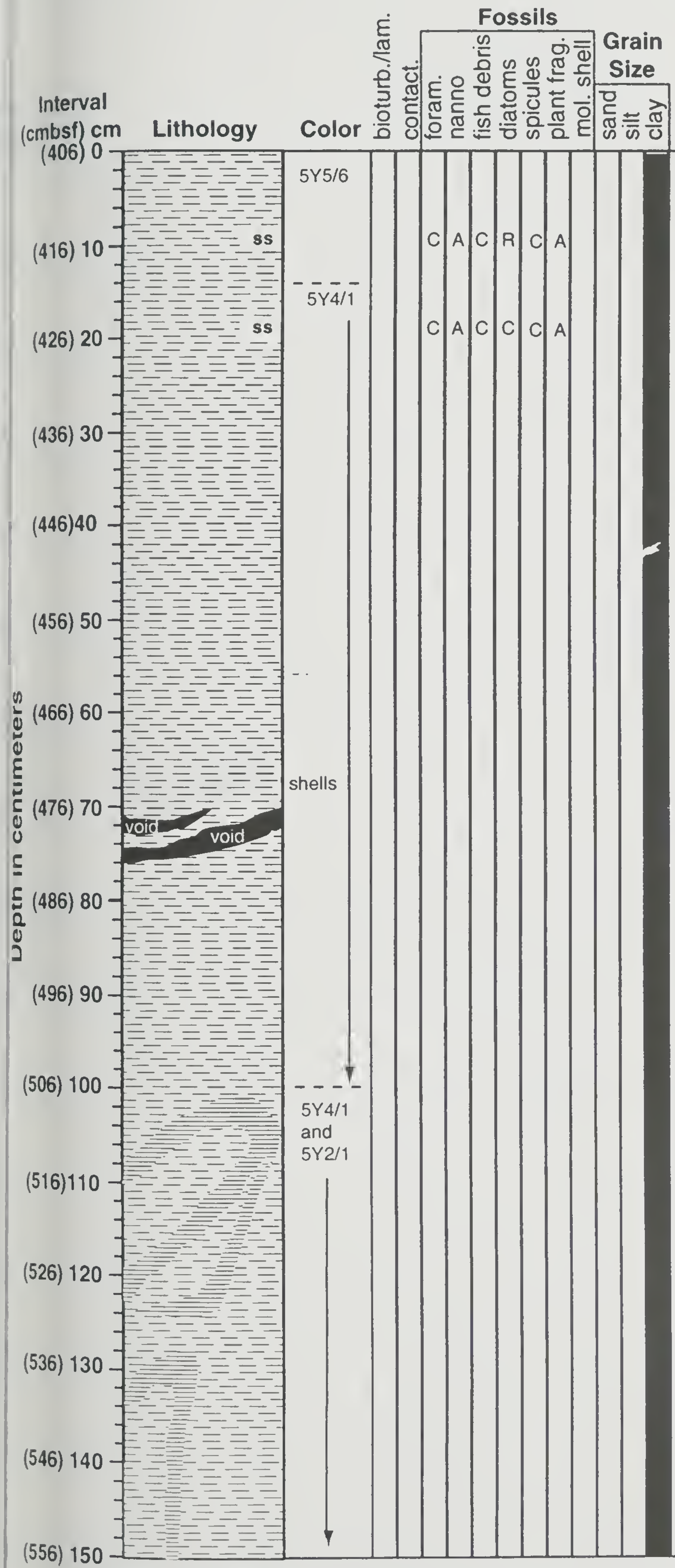
smear slides

ss 80 cm (light)
A: clay; nannos; organic matter
C:; fish debris; pyrite; sponge spic.; nannos; forams
R: rads; silicoflag

150 cm = bottom of sect. 6

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC05 Sect.: 5 (406-556 cmbsf) Lat.: 23 28 N Long.:111 35.92 W
Water Depth: 710 m



Remarks

CLAY (organic-rich; nanno-bearing):
0-16 cm: homogen. dark greenish gray (5GY4/1)

16-100 cm: homogenous ol. gray (5Y4/1)

100-150 cm: 5Y4/1 with ol. black (5Y2/1) elongate mottles (= burows?; but with very diffuse borders that do not look like normal burrows with fairly sharp margins)

smear slides

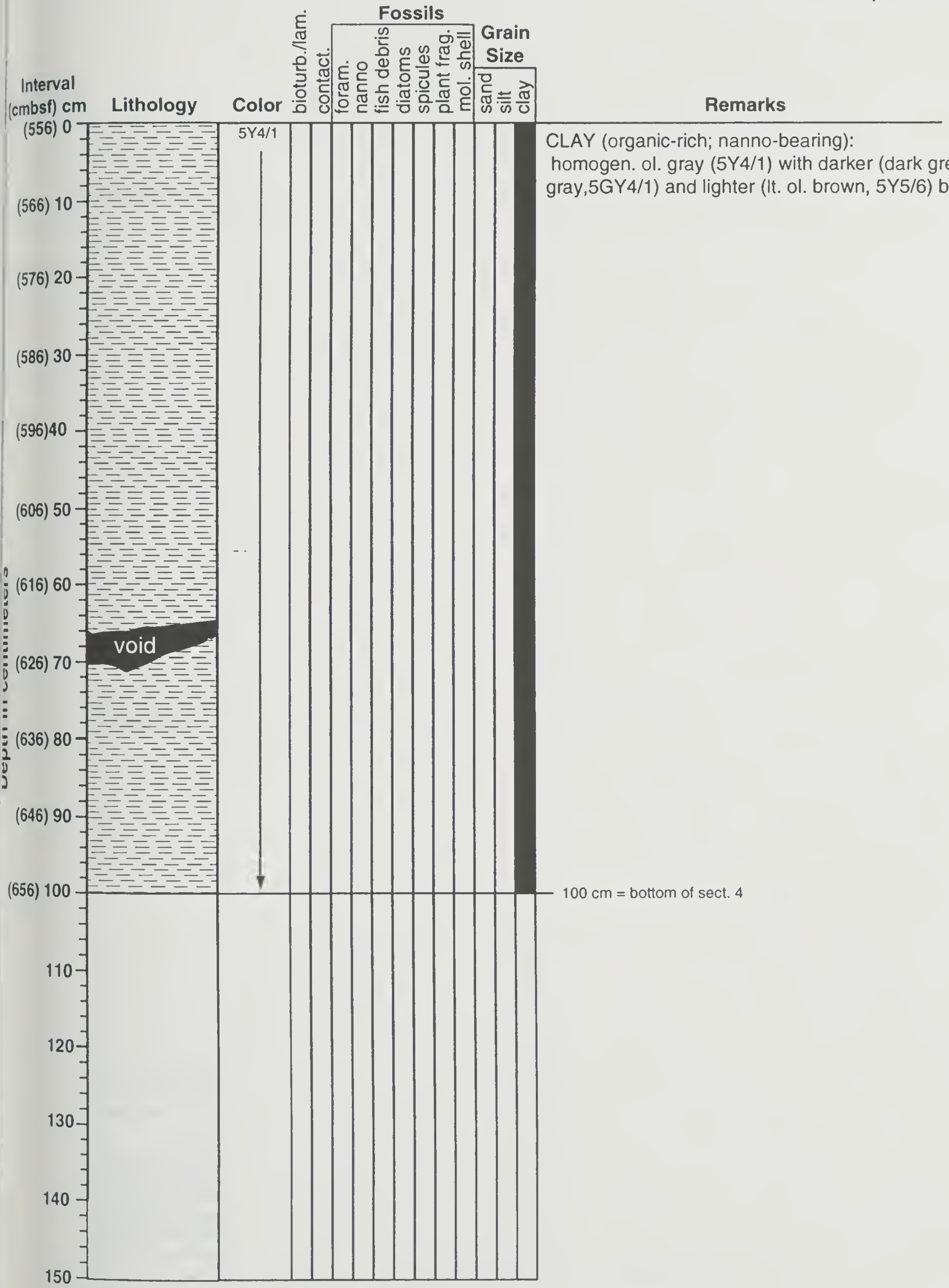
ss 10 cm (dark)
A: clay; nannos; organic matter
C:; fish debris;pyrite; sponge spic.; forams
R: rads; silicoflag; diatoms

ss 20 cm (light)
A: clay; nannos; organic matter
C:; fish debris;pyrite; sponge spic.; forams; diatoms
R: rads; silicoflag

150 cm = bottom of sect. 5

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

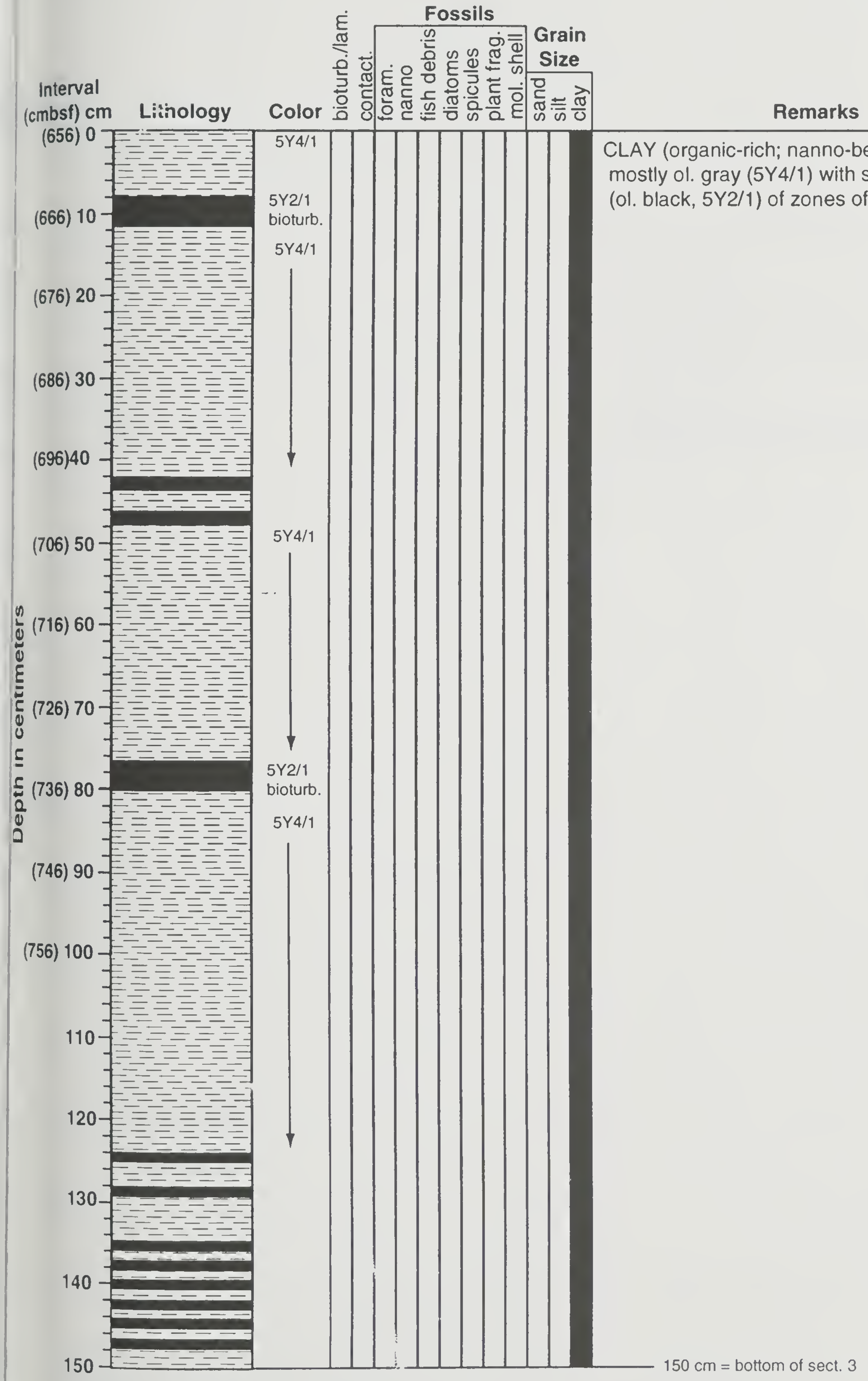
0XMZ01MV Core: PC05 Sect.: 4 (556-656 cmbsf) Lat.: 23 28 N Long.:111 35.92 W
Water Depth: 705 m



CLAY (organic-rich; nanno-bearing):
homogen. ol. gray (5Y4/1) with darker (dark greenish gray,5GY4/1) and lighter (lt. ol. brown, 5Y5/6) burrow mottles

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

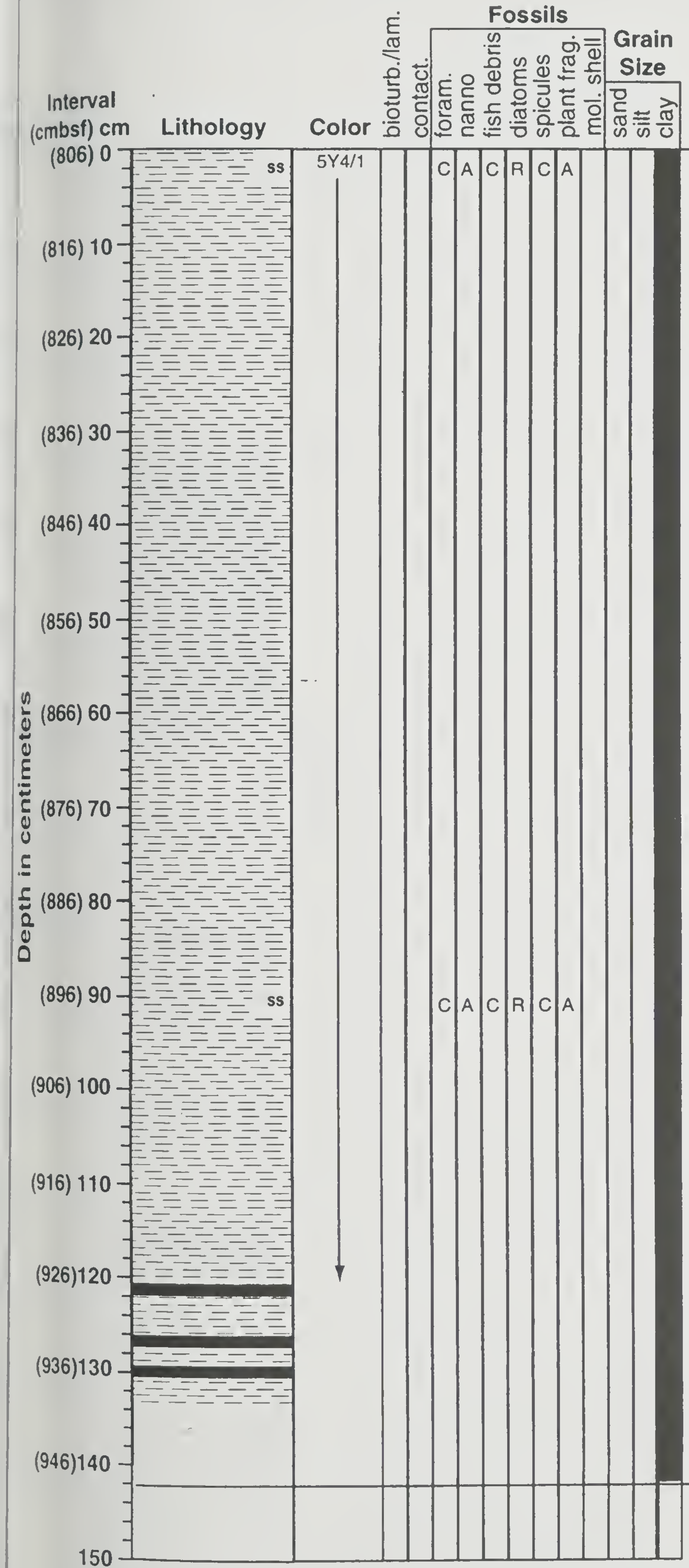
OXMZ01MV Core: PC05 Sect.: 3 (656-806 cmbsf) Lat.: 23 28 N Long.:111 35.92 W
Water Depth: 705 m



CLAY (organic-rich; nanno-bearing):
mostly ol. gray (5Y4/1) with several darker
(ol. black, 5Y2/1) of zones of cm-scale banding or bioturbatio

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC05 Sect.: 2 (806-948 cmbsf) Lat.: 23 28.0 N Long.:111 35.92 W
Water Depth: 705 m



Remarks

CLAY (organic-rich; nanno-bearing):
mostly ol. gray (5Y4/1), with one dark (ol. black, 5Y2/1) zone (120-130 cm) of cm-scale;
134-142cm: soupy (disturbed by coring?)

smear slides

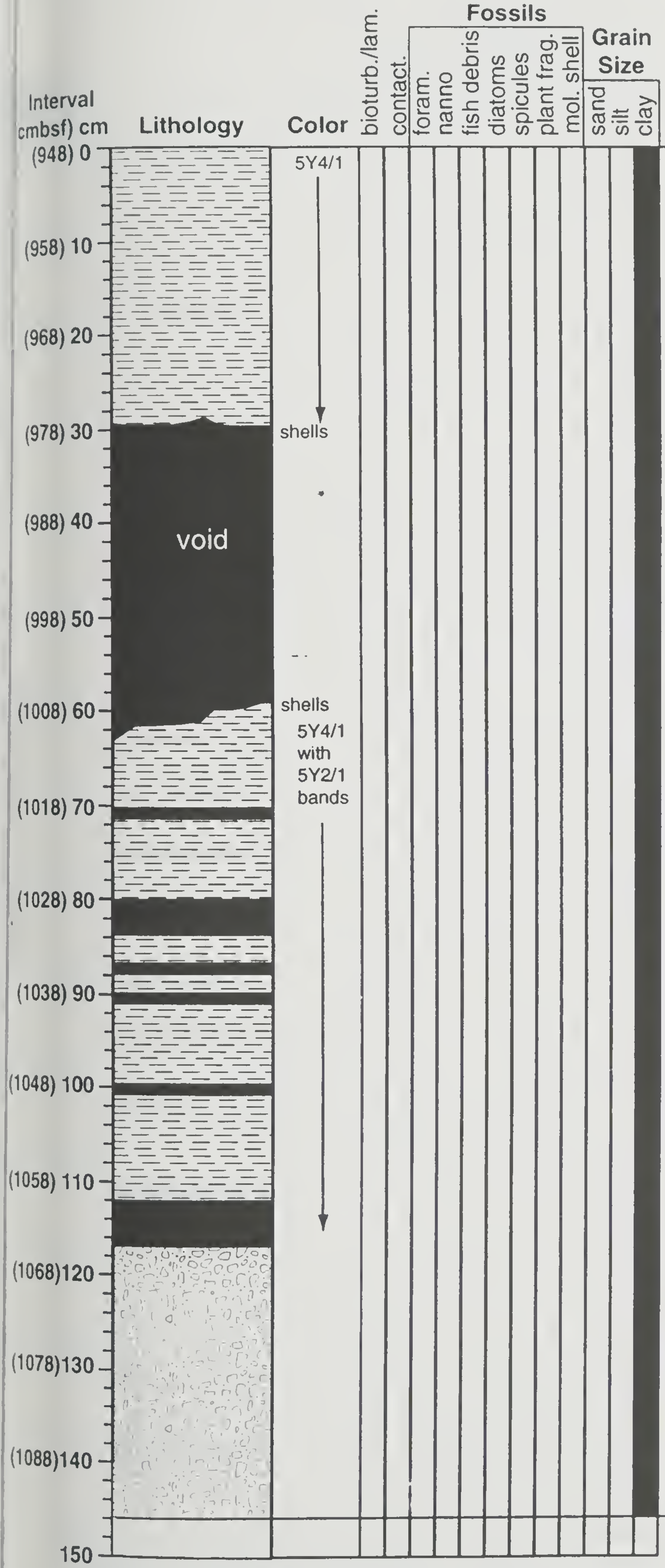
ss 2 cm (dark)
A: clay; organic matter; nannos
C; pyrite; sponge spic.; forams; fish debris
R: diatoms; rads

ss 90 cm (light)
A: clay; nannos; organic matter
C:; fish debris; pyrite; sponge spic.; forams
R: diatoms

142 cm = bottom of sect. 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: PC05 Sect.:1 (948-1094 cmbsf) Lat.: 23 28.0 N Long.:111 35.92 W
Water Depth: 710 m



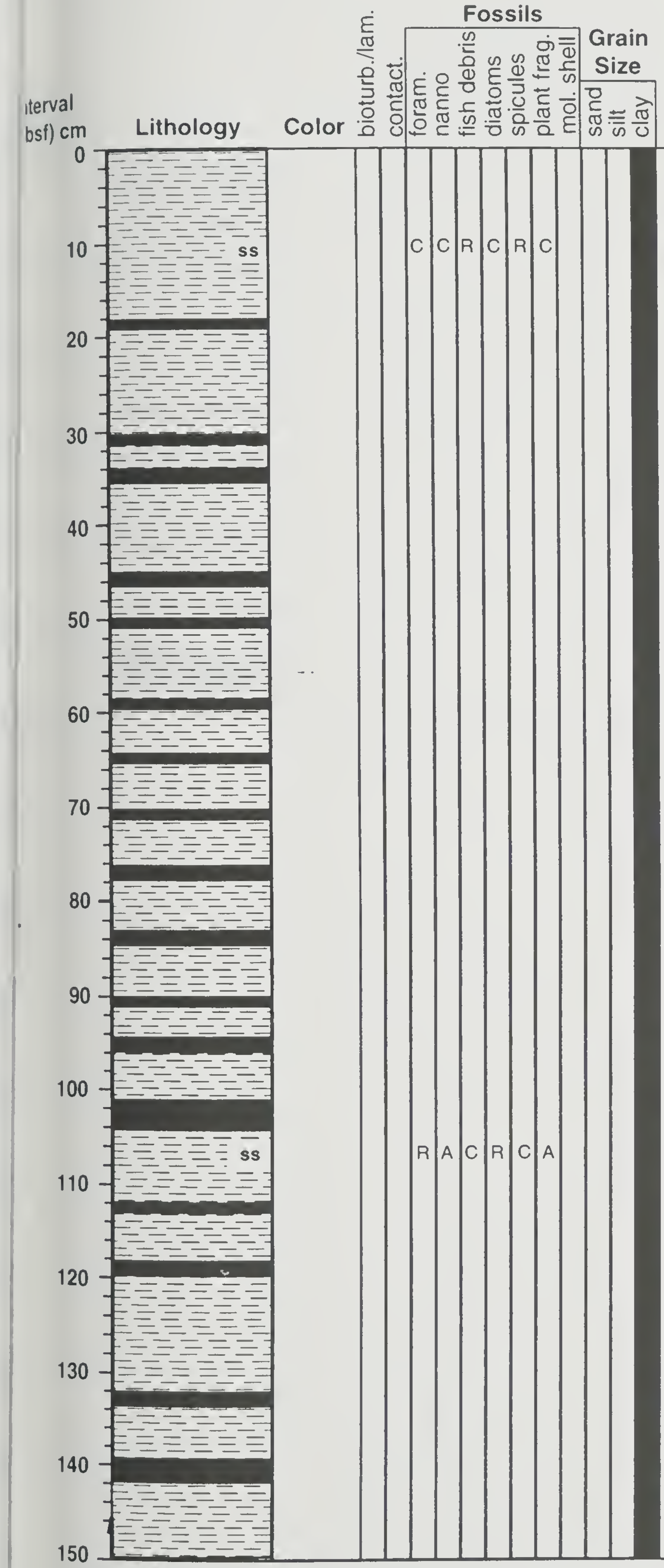
Remarks

CLAY (organic-rich; nanno-bearing):
0-28 cm: homogen. ol. gray (5Y4/1)
28-62 cm: void
62-117 cm: 5Y4/1 with dark (ol. black, 5Y2/1) cm-scale bands
117-146 cm; soupy (disturbed by coring or gas?)

146 cm = bottom of sect. 1; 1094 cmbsf = base of PC05

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

)XMZ01MV Core: TC05 Sect.: 2 (0-150 cmbsf) Lat.: 23 28.0 N Long.: 111 35.92 W
Water Depth: 705 m



Remarks

CLAY (foram-, nanno-bearing): basic stratigraphy is cm-scal interlayering of light and dark bands. there are some slight variations in color, but the basic colors are
■ dark: ol. black, 5Y2/1;
▤ light: dusky yel. brown, 10YR2/2 to dark yel. brown (10YR4/2) diffuse boundaries

smear slides

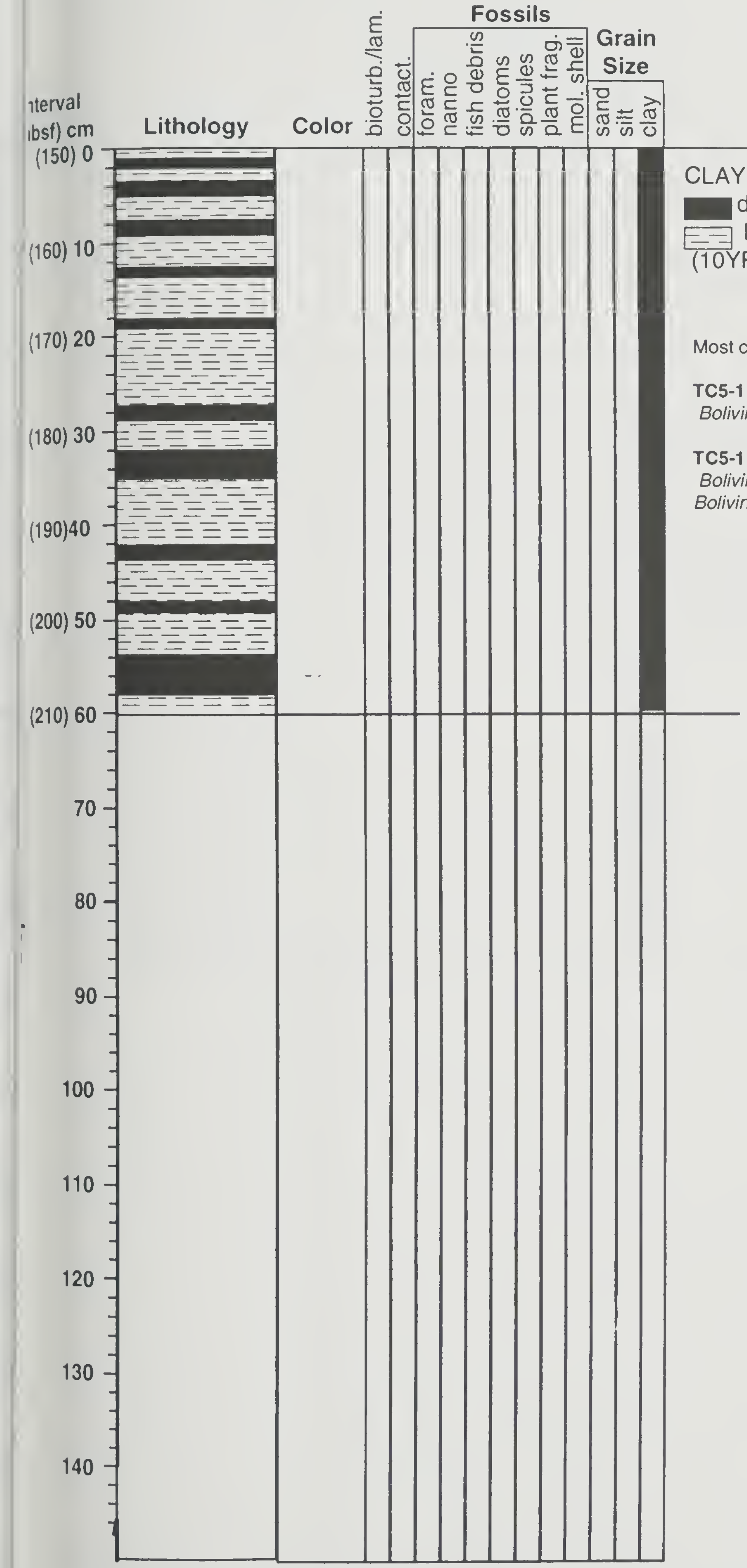
ss 10 cm (dark top)
A: clay; organic matter
C: nannos; forams; diatom; pyrite; palynom; lithic fragments.
R: sponge spic.; fish debris; silicoflag.; rads

ss 105 cm
A: clay; organic matter; nannos
C: sponge spic; pyrite; fish debris
R: diatoms (a few girdle bands); forams; rads

150 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: TC05 Sect.: 1 (150-211 cmbsf) Lat.: 23 28.0 N Long.: 111 35.92 W
Water Depth: 705 m



CLAY (foram-, nanno-bearing):
■ dark: ol. black, 5Y2/1;
▤ light: dusky yel. brown, 10YR2/2 to dark yel. brown (10YR4/2) diffuse boundaries

Most common foraminifera

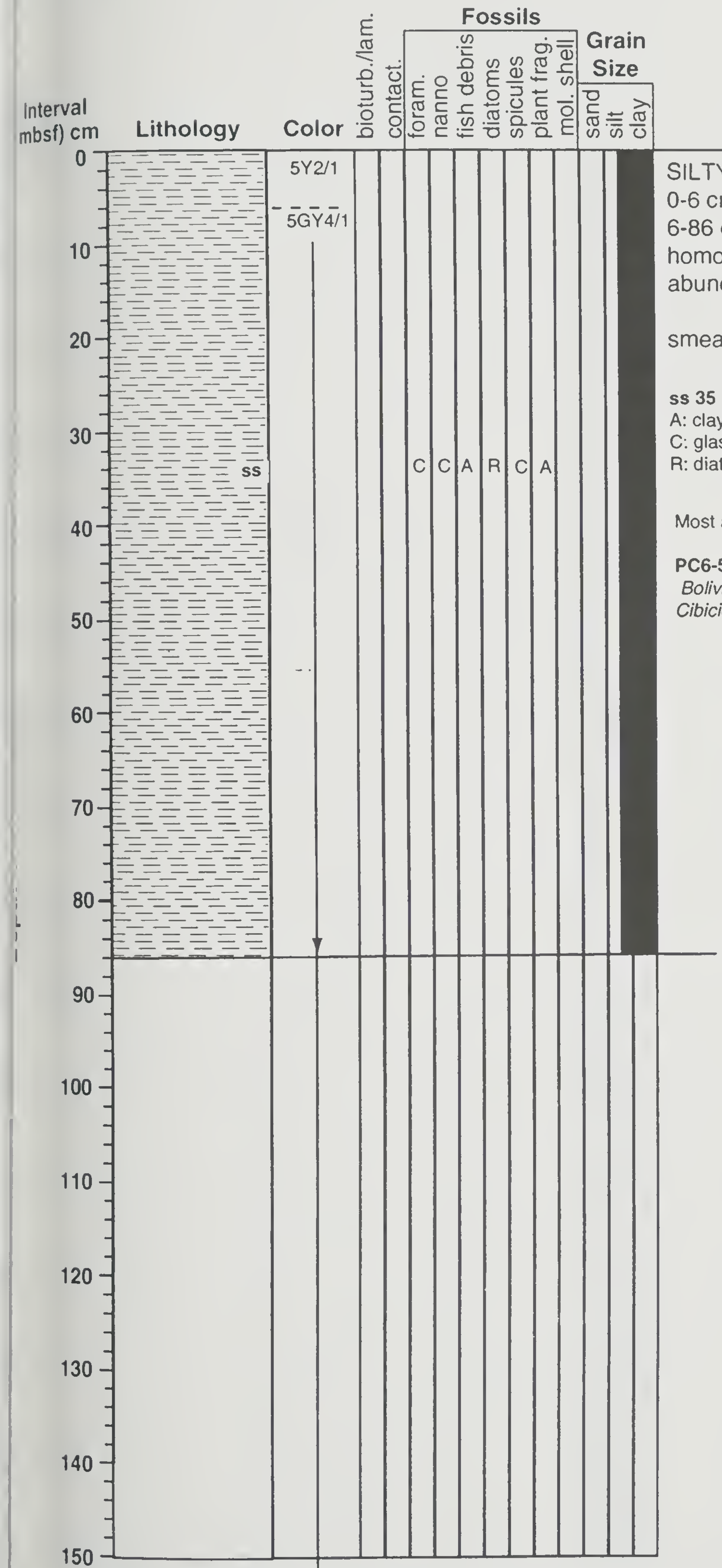
TC5-1 28-29 cm
Bolivina sp., Bolivina seminuda, Buliminella tenuata

TC5-1 31-32 cm
Bolivina sp., Bolivina seminuda, Buliminella tenuata, Uvigerina sp., Bolivina argentea, Angulogerina sp.

61 cm = bottom of section 1; 211 cmbsf = base of TC05

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC06 Sect.: 5 (0-86 cmbsf) Lat.: 23 20.43 N Long.: 110 24.28 W
Water Depth: 548 m



Remarks

SILTY CLAY (organic-rich; nanno, foram--bearing):
0-6 cm: homogenous, soupy ol. black (5Y2/1)
6-86 cm: dark greenish gray (5GY4/1), more or less homogen, but hint of slightly darker relic banding below 60 cm
abundant mica visible on surface

smear slides

ss 35 cm
A: clay; lithic fragments; pyrite; fish debris; organic matter
C: glass; nannos; forams;
R: diatoms; rads; sponge spic.

Most abundant foraminifera

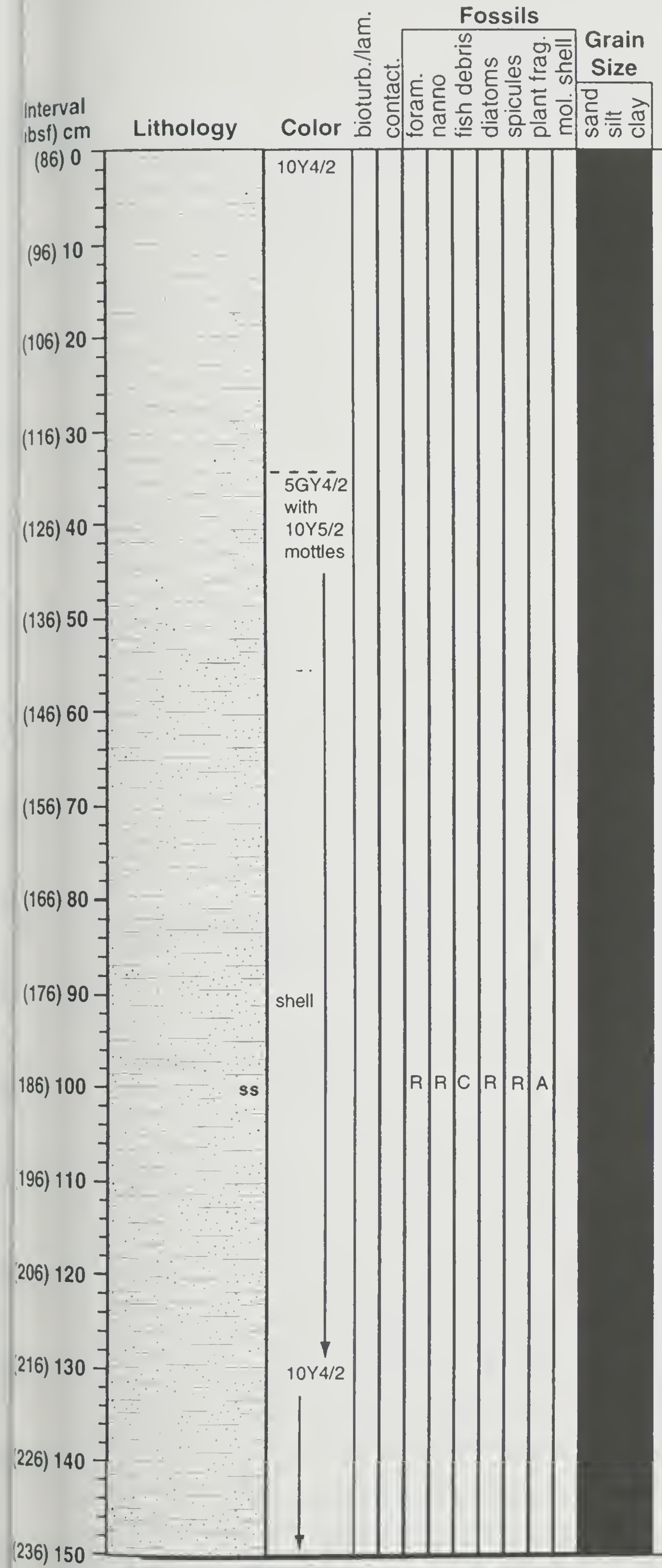
PC6-5 0-2 cm
Bolivina sp., Uvigerina sp., Bolivina argentea, Buliminella tenuata, Cibicides sp., Cassidulina sp.

86 cm = bottom of sect. 5

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC06 Sect.: 4 (86-236 cmbsf) Lat.: 23 20.43 N Long.: 110 24.28 W

Water Depth: 548 m



150 cm = bottom of sect. 4

Remarks

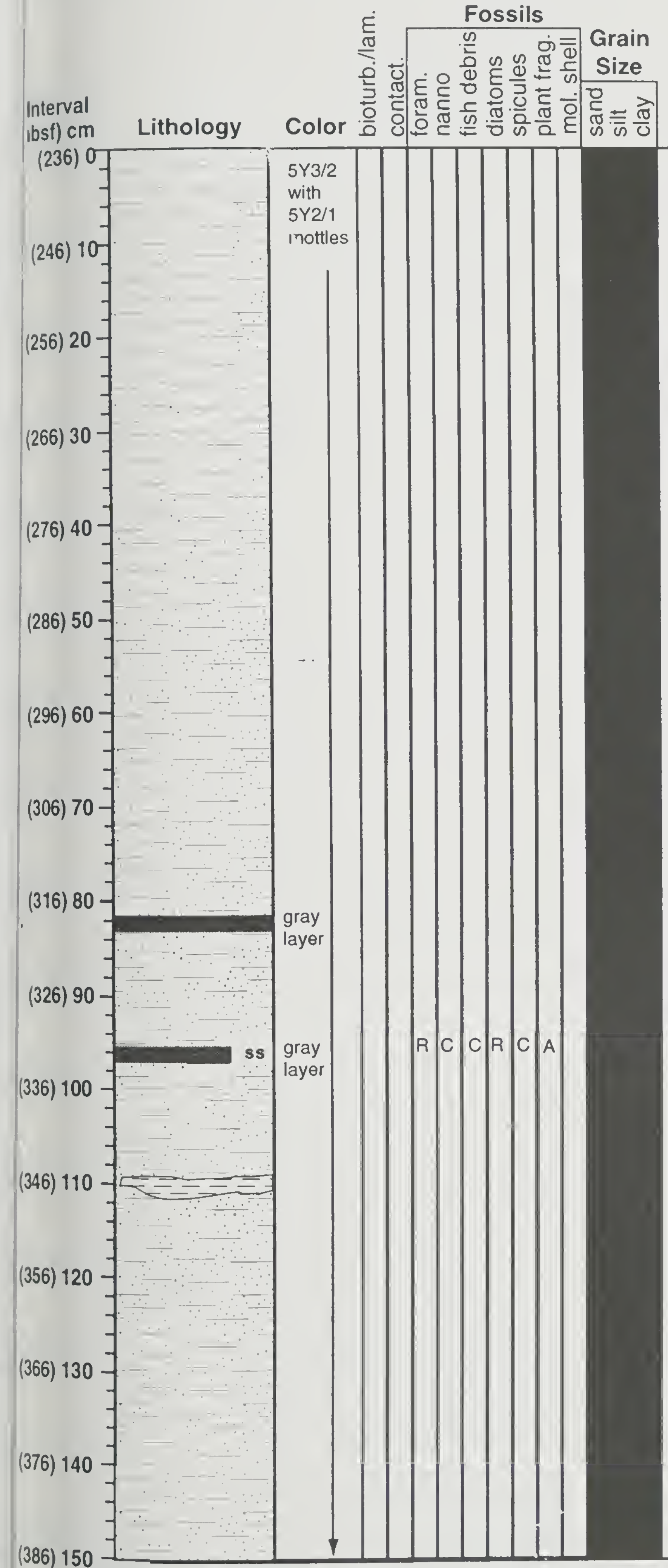
SANDY SILT (organic-rich):
0-35 cm: homogenous, grayish olive (10Y4/2)
35-50 cm: 10Y4/2, more or less homogen, but with burrow mottles of slightly lighter material (10Y5/2)
50-130 cm: bioturbated 10Y5/2 with 10Y4/2 mottles
130-150: homogeneous 10Y4/2

smear slides
ss 100 cm
A: clay; lithic fragments; organic matter
C: pyrite; glass; fish debris
R: sponge spic.; nannos; forams;diatoms; rads

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC06 Sect.: 3 (236-386 cmbsf) Lat.: 23 20.43 N Long.: 110 24.28 W

Water Depth: 548 m



Remarks

SANDY SILT (organic-rich):
olive gray (5Y3/2) with darker burrow mottles
(dark olive gray, 5Y2/1)
gray layers @ 83 & 96 cm
110 cm = light dusky brown layer? burrow?

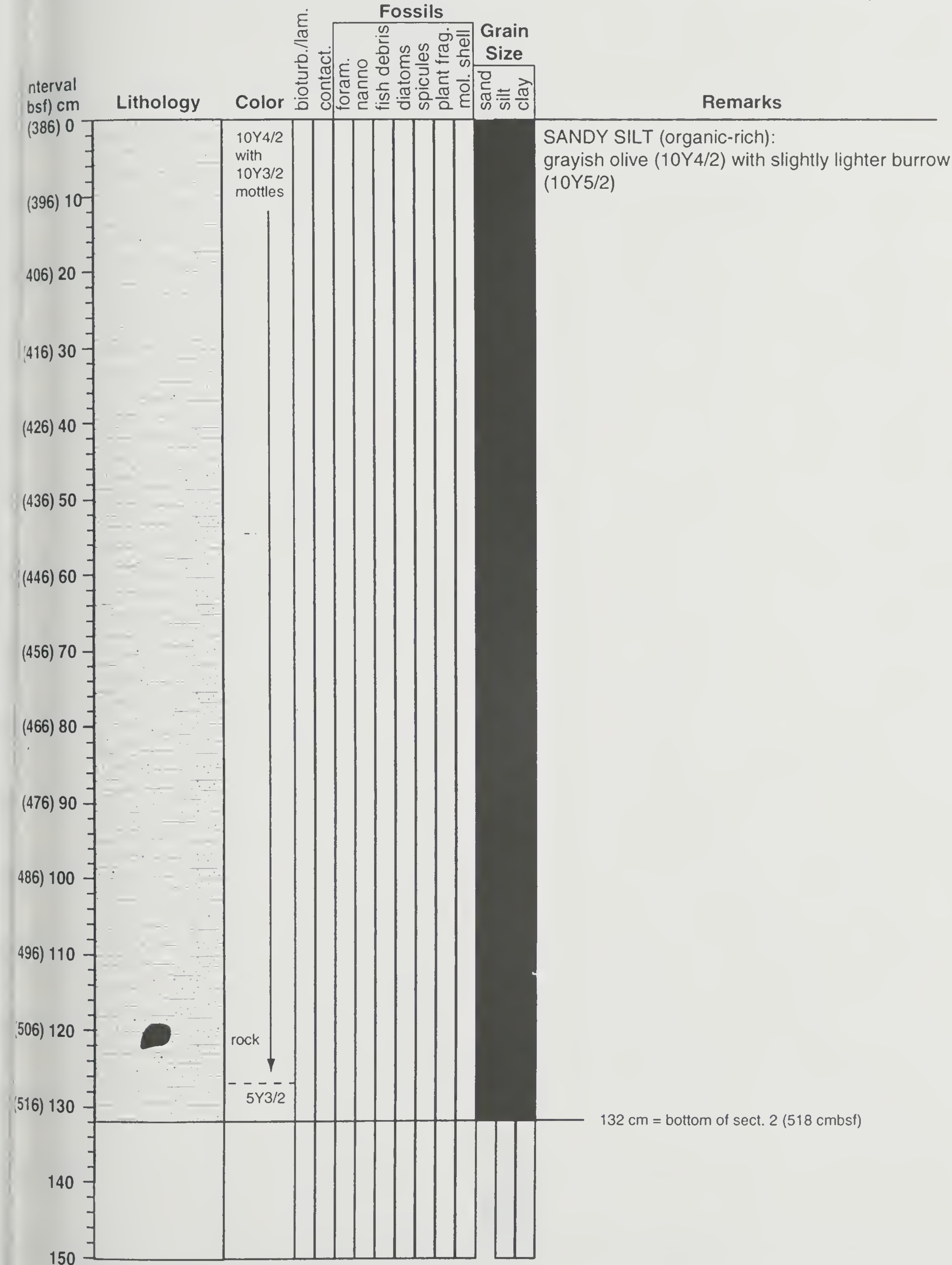
smear slides

ss 96 cm (gray layer)
A: clay; organic matter
C: pyrite; glass; fish debris; nannos; sponge spic.
R: forams;diatoms; rads

150 cm = bottom of sect. 3

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

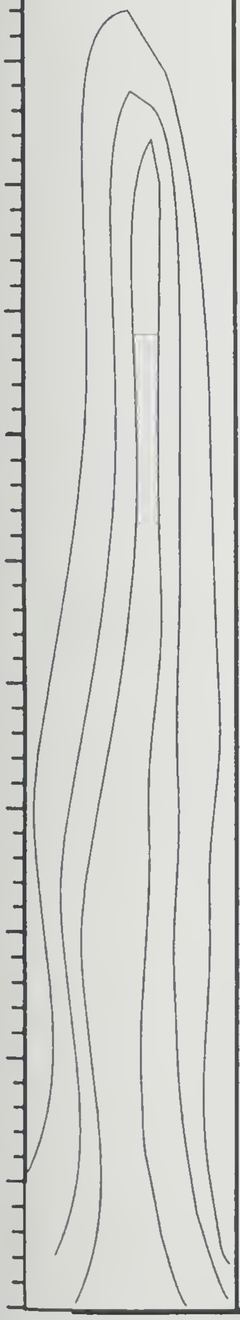
XMZ01MV Core: PC06 Sect.: 2 (386-518 cmbsf) Lat.: 23 20.43 N Long.: 110 24.28 W
Water Depth: 548 m



SANDY SILT (organic-rich):
grayish olive (10Y4/2) with slightly lighter burrow mottles (10Y5/2)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

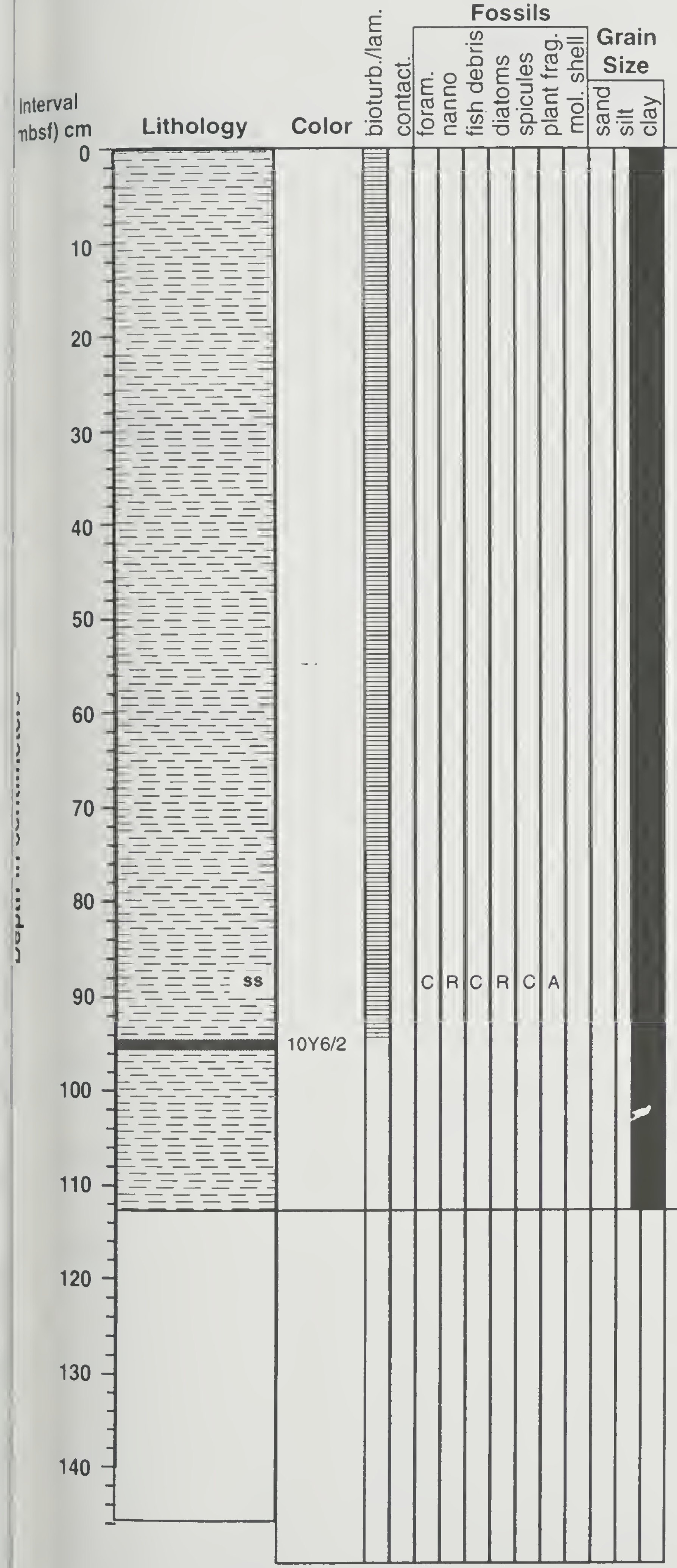
XMZ01MV Core: PC06 Sect.: 1 (536-686 cmbsf) Lat.: 23 20.43 N Long.: 110 24.28 W
Water Depth: 548 m

nterval bsf) cm	Lithology	Color	bioturb./lam.	contact.	Fossils: foram.	nanno	fish debris	diatoms	spicules	plant frag.	mol. shell	Grain Size: sand silt clay	Remarks
(518) 0												▇	SANDY SILT (organic-rich): flow-in; flow in defined by bands of lighter 10Y5/2 in darker 10Y4/2
528) 10												▇	
538) 20												▇	
(548) 30												▇	
(558) 40												▇	
(568) 50												▇	
(578) 60												▇	
(588) 70												▇	
(598) 80												▇	
(608) 90												▇	
618) 100												▇	
628) 110												▇	
(638) 120												▇	
(648) 130												▇	
(658) 140												▇	
(668) 150												▇	150 cm = bottom of sect. 1; 668 cm = base of core PC06

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: TC06 Sect.: 1 (0-113 cmbsf) Lat.: 23 20.43 N Long.: 110 24.28 W

Water Depth: 548 m



Remarks

CLAYEY SILT (organic-rich):
Predominantly dark (ol. gray 5Y3/2) with cm-scale lighter layers (mod.ol. brown, 5Y4/4 and lt. ol. brown, 5Y5/6; 95-96 cm = pale olive (10Y5/6) clay layer

smear slides

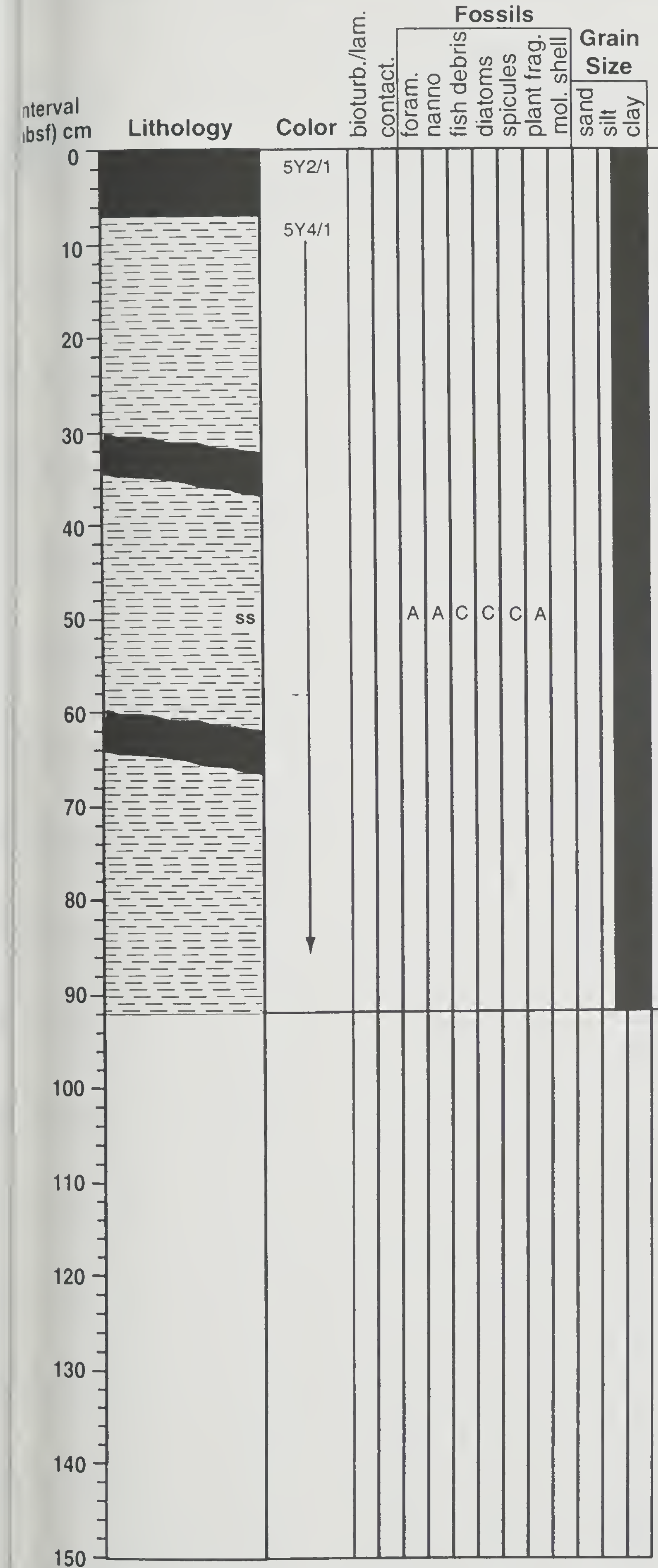
ss 88 cm (darkest)
A: clay; organic matter
C: pyrite; forams; fish debris; sponge spic.
R: rads; nannos; diatoms

113 cm = bottom of section 1, base of core TC06

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC07 Sect.: 8 (0-92 cmbsf) Lat.: 23 20.06 N Long.: 111 01.02 W

Water Depth: 978 m



Remarks

SILTY CLAY (organic-rich; nanno, foram--bearing): homogenous ol. gray (5Y4/1) with bioturbated dark bands (ol. black, 5Y2/1) as indicated ▬

smear slides

ss 50 cm (5Y4/1 lithology)

A: clay; lithic fragments; forams; nannos; organic matter

C: glass; pyrite; fish debris; sponge spic.; diatoms (girdle bands, fragments, some whole, small centrics)

R: rads

Most abundant forams

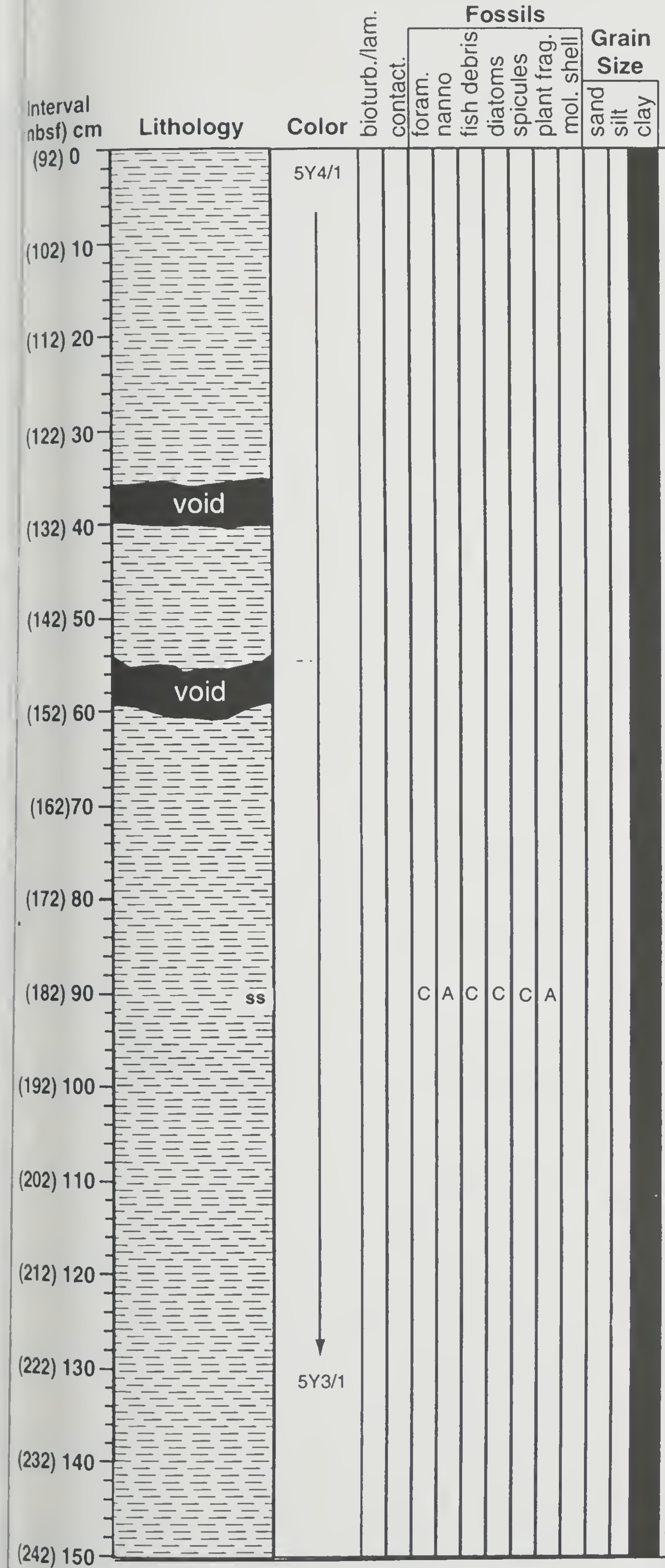
PC7-8 0-2 cm

Uvigerina sp., Bolivina spissa, Cassidulina sp., Epistominella sp., Cibicides sp.

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC07 Sect.: 7 (92-242 cmbsf) Lat.: 23 20.06 N Long.: 111 01.02 W
Water Depth: 978 m



SILTY CLAY (organic-rich; nanno, foram-bearing): homogenous cl. gray (5Y4/1 becoming slightly darker (5Y3/1) at bottom

smear slides

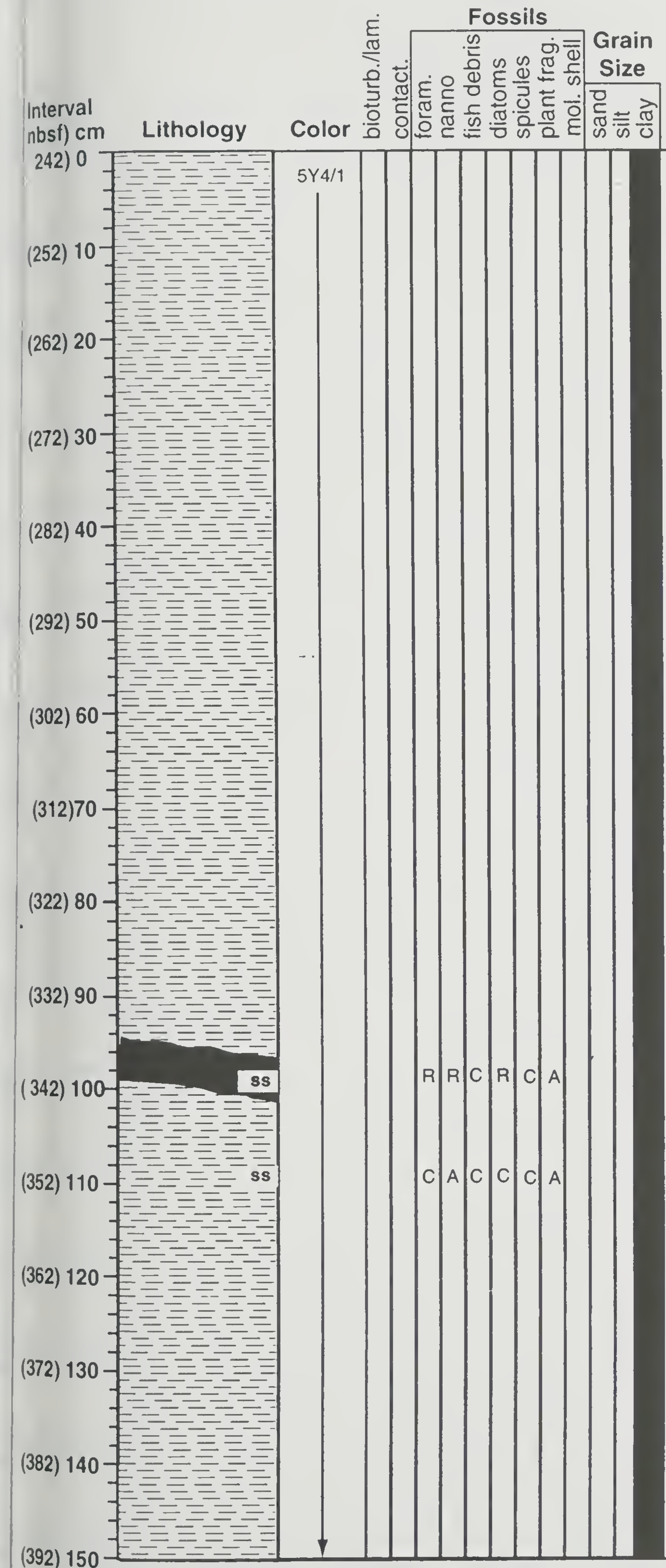
ss 90 cm (dom. lithology)
A: clay; nannos; organic matter
C: forams; pyrite; fish debris; sponge spic.; diatoms (girdle bands, fragments some whole, small centrics)
R: rads

150 cm = bottom of sect. 7

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

)XMZ01MV Core: PC07 Sect.: 6 (242-392 cmbsf) Lat.: 23 20.06 N Long.: 111 01.02 W

Water Depth: 978 m



Remarks

SILTY CLAY (organic-rich; nanno-, foram-bearing): homogenous ol. gray (5Y4/1); dark (5Y2/1) layer at 100 cm

smear slides

ss 99 cm (dark band)
A: clay; organic matter
C: pyrite; fish debris; sponge spic.; lithic fragments
R: rads ; diatoms; forams; nannos; silicoflag.

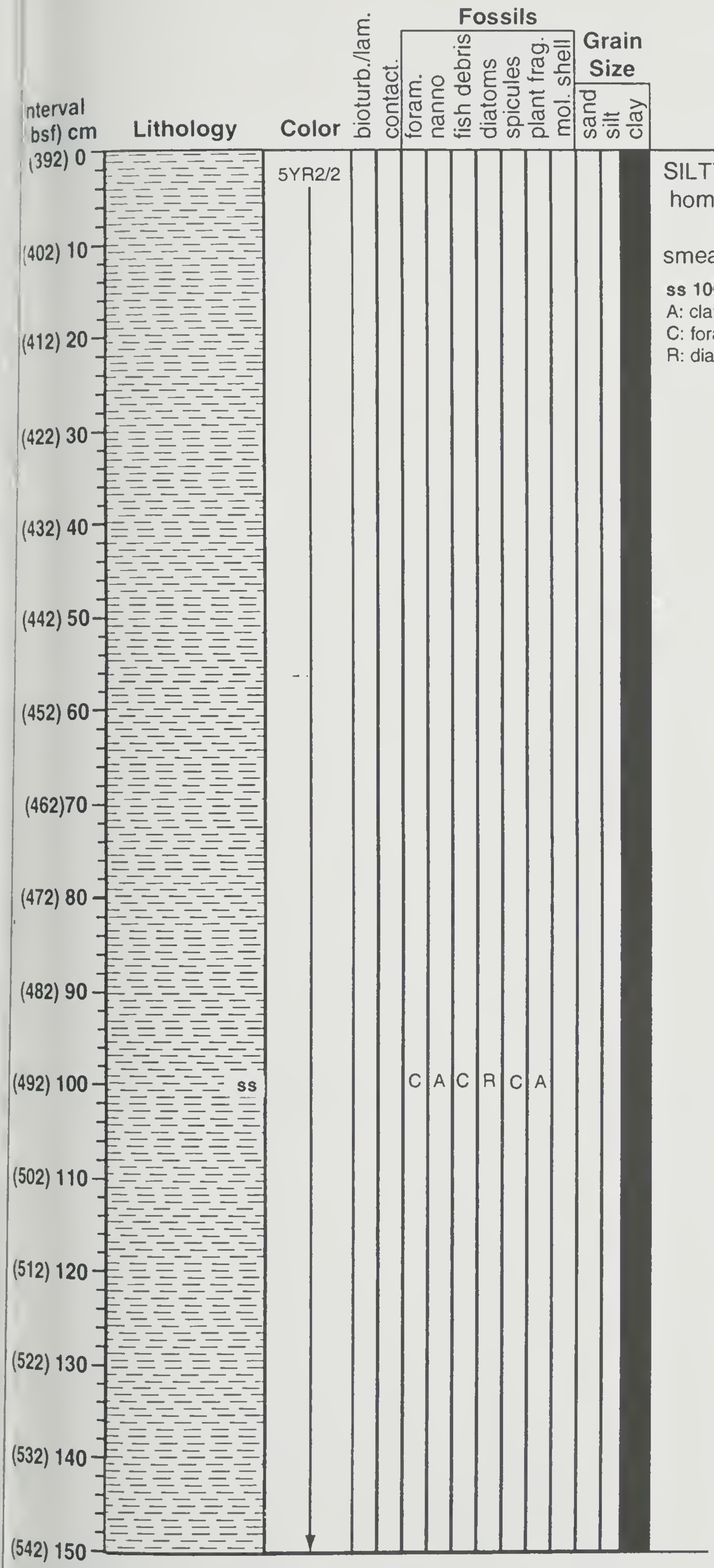
ss 110 cm (dom. lith.)
A: clay; organic matter; nannos
C: pyrite; fish debris; sponge spic.; lithic fragments; forams; diatoms
R: rads; silicoflag.

150 cm = bottom of sect. 6

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC07 Sect.: 5 (392-542 cmbsf) Lat.: 23 20.06 N Long.: 111 01.02 W

Water Depth: 978 m



SILTY CLAY (organic-rich; nanno-, foram-bearing): homogenous dusky yel. brown (5YR2/2)

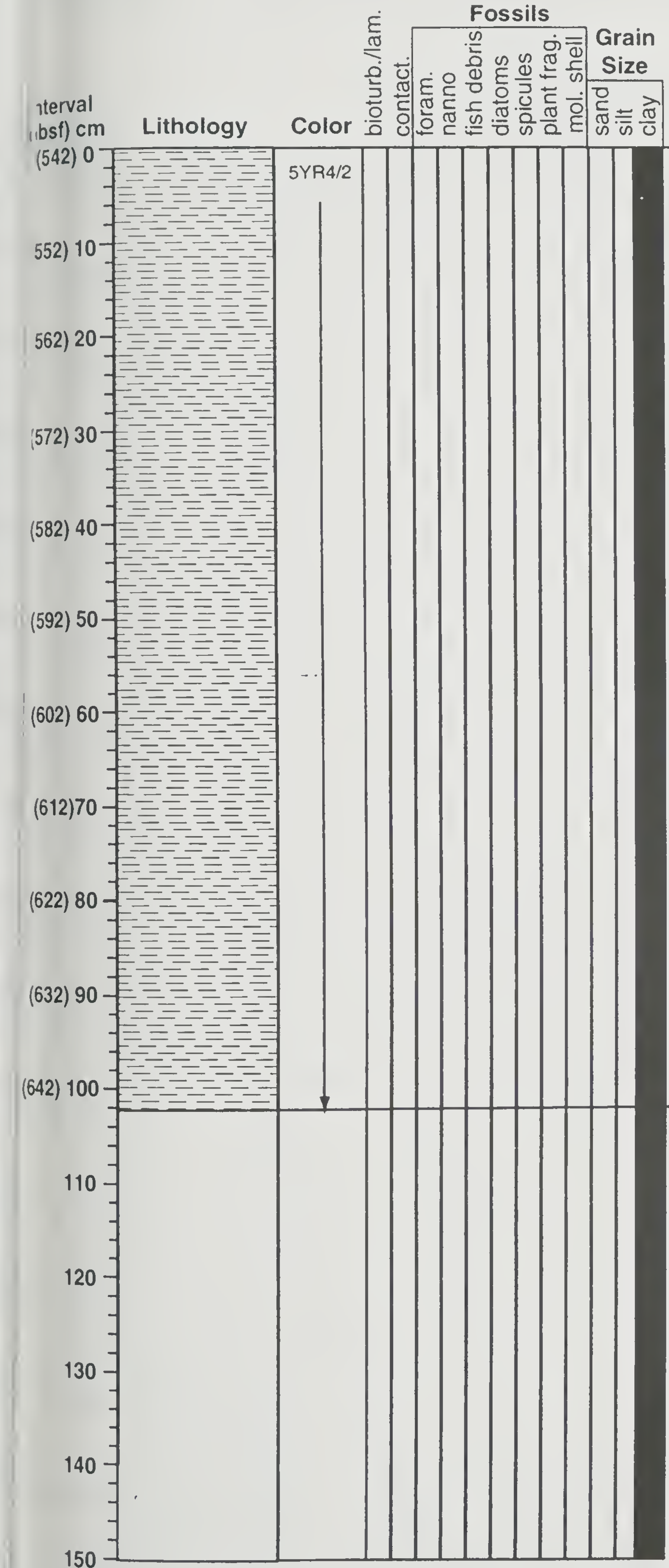
smear slides

ss 100 cm (dom. lithology)
A: clay; nannos; organic matter
C: forams; pyrite; fish debris; sponge spic.; lithic fragments,
R: diatoms; silicofragil.; rads

150 cm = bottom of sect. 5

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC07 Sect.: 4 (542-644 cmbsf) Lat.: 23 20.06 N Long.: 111 01.02 W
Water Depth: 978 m



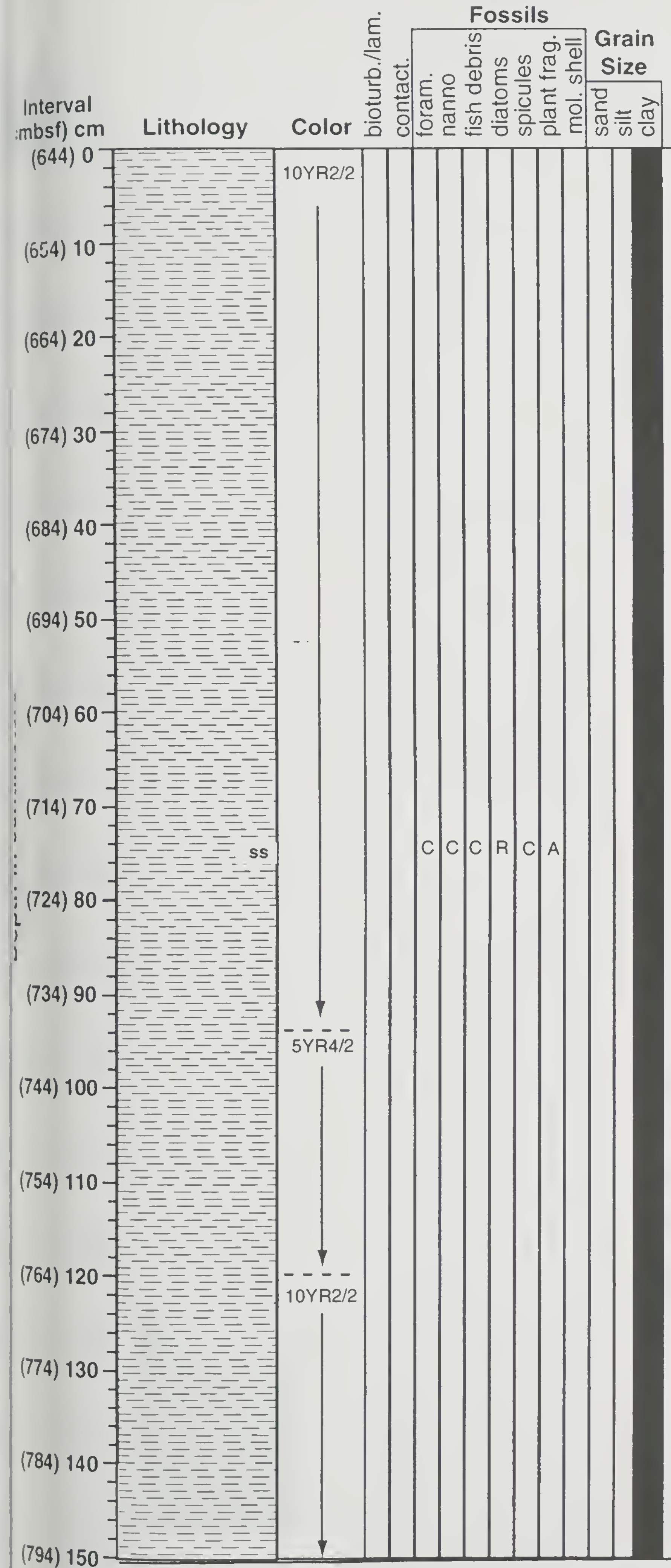
Remarks

SILTY CLAY (organic-rich; nanno-, foram-bearing): homogenous dark yel. brown (5YR4/2)

102 cm = bottom of sect. 4 (644 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: PC07 Sect.: 3 (644-794 cmbsf) Lat.: 23 20.06 N Long.: 111 01.02 W
Water Depth: 978 m



Remarks

SILTY CLAY (organic-rich; nanno-, foram-bearing): homogenous dusky yel. brown (10YR2/2) w/ one lighter ban
(10YR4/2) at 94-120 cm

smear slides

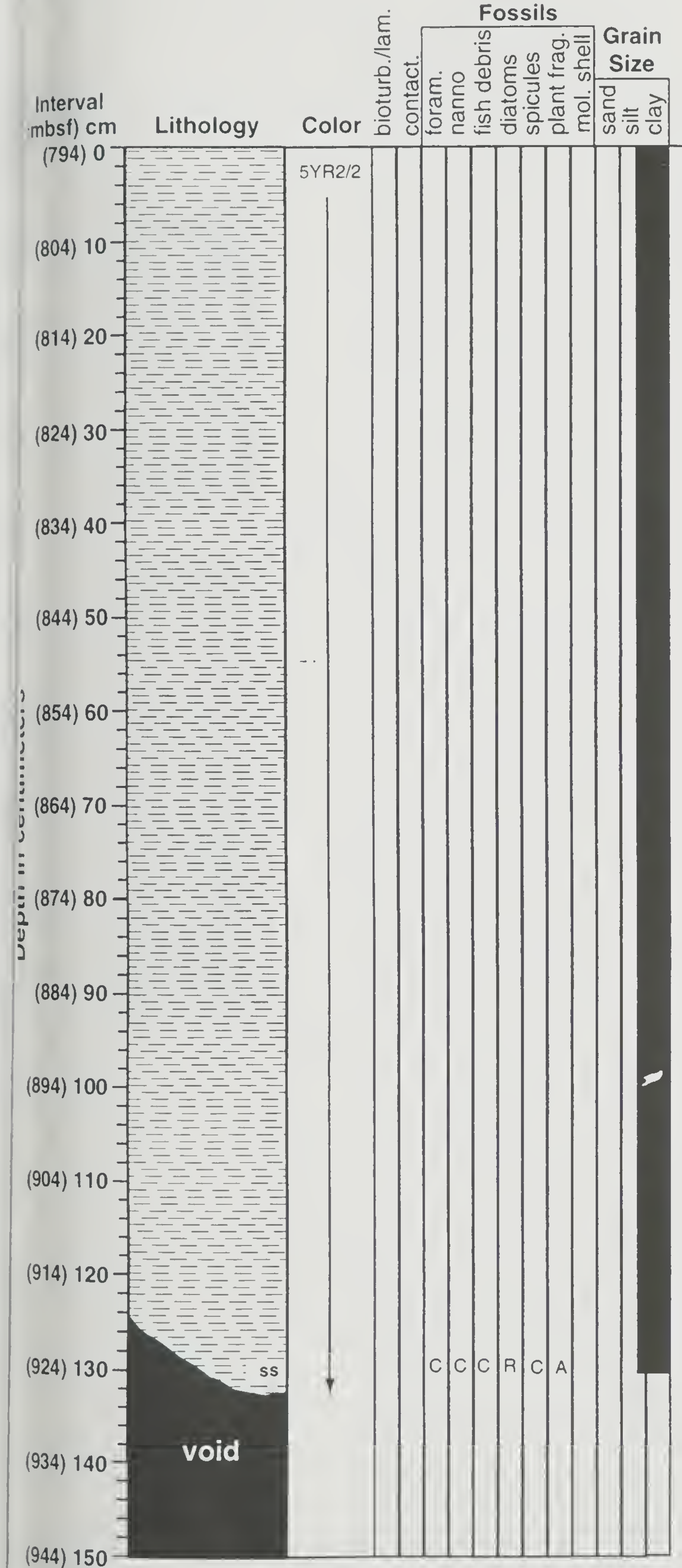
ss 75 cm (dom. lithology)
A: clay; organic matter
C: forams; nannos; pyrite; fish debris; sponge spic.; lithic fragments,
R: diatoms; rads

150 cm = bottom of sect. 3

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC07 Sect.: 2 (794-944 cmbsf) Lat.: 23 20.06 N Long.: 111 01.02 W

Water Depth: 978 m



Remarks

SILTY CLAY (organic-rich; nanno-, foram-bearing): homogenous dusky yel. brown (5YR2/2)

smear slides

ss 130 cm (dom. lithology)

A: clay; organic matter

C: forams; nannos; pyrite; fish debris; sponge spic.; lithic fragments

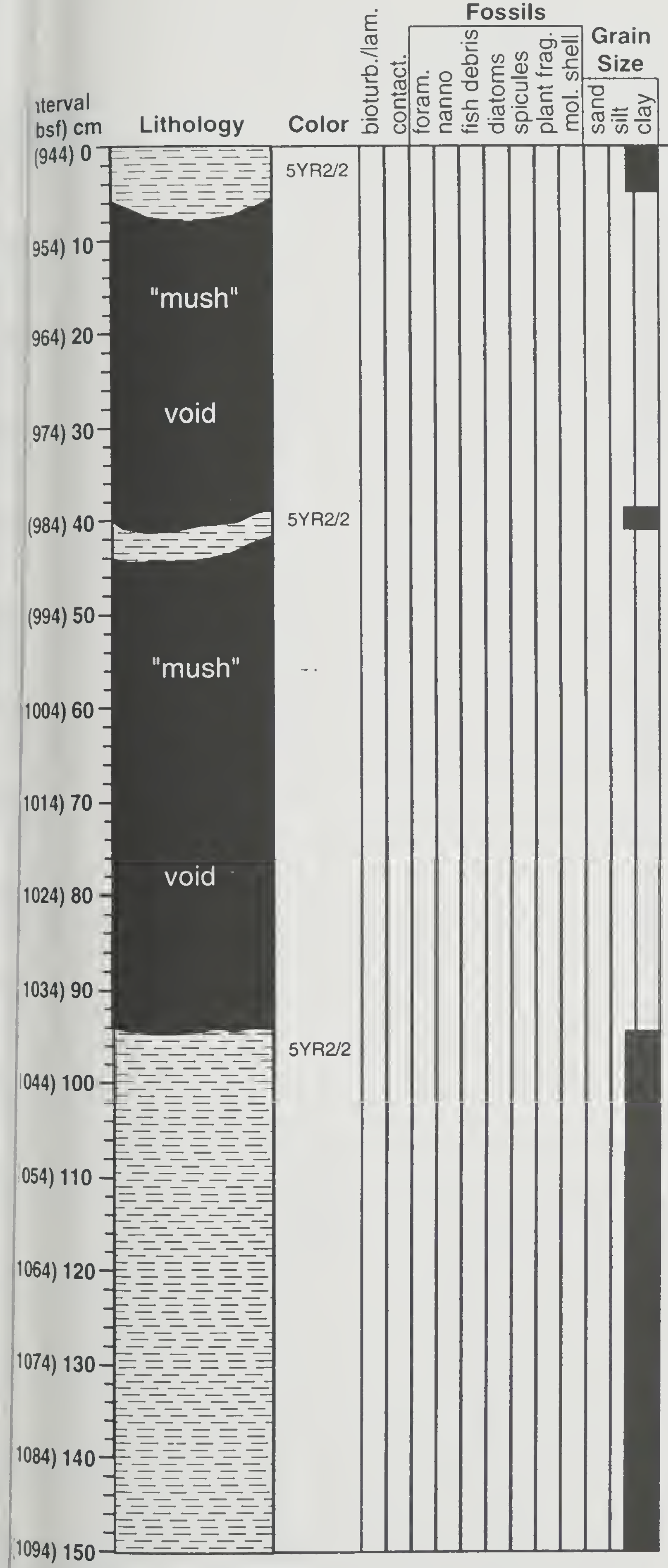
R: diatoms (*Azpeitia; Actinophychus; Coscinodiscus; Thalassiosira; Adinocyclus*); rads

150 cm = bottom of sect. 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC07 Sect.: 1 (944-1094 cmbsf) Lat.: 23 20.06 N Long.: 111 01.02 W
Water Depth: 978 m

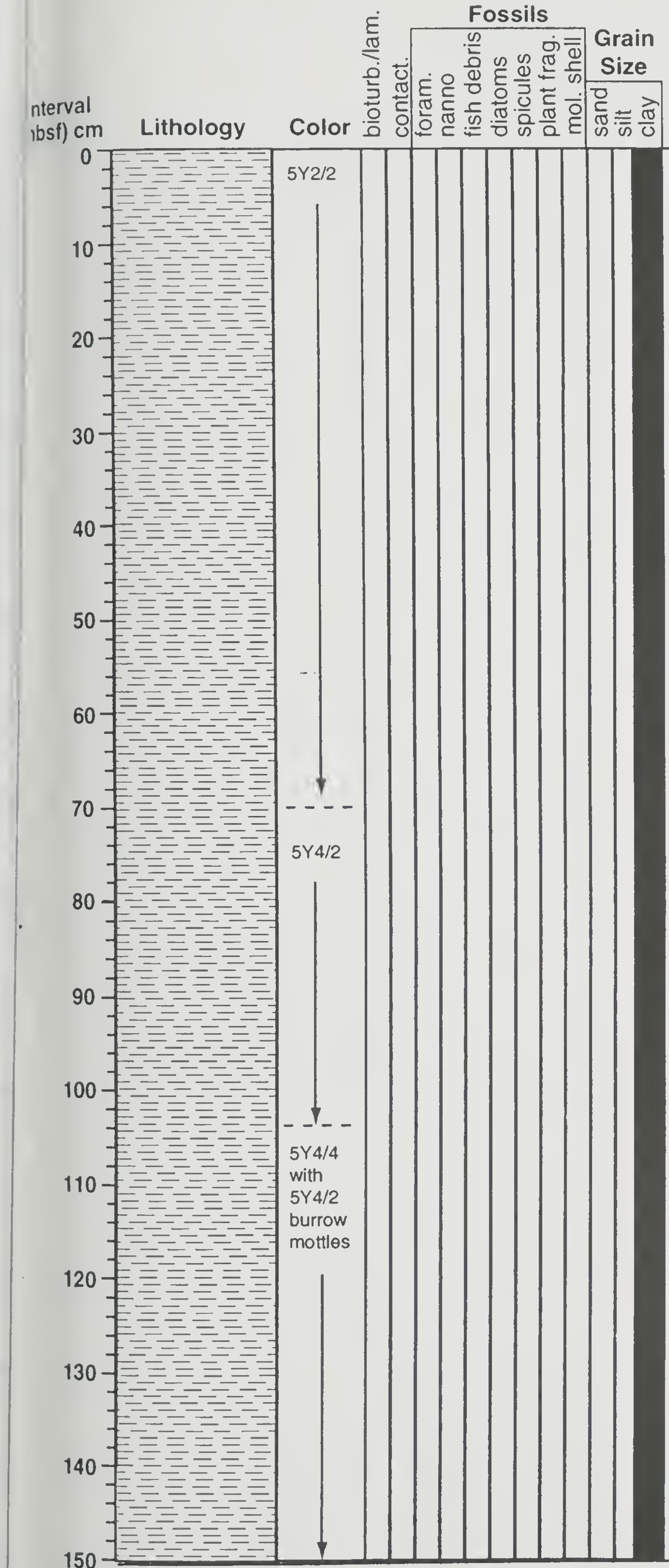


Remarks

SILTY CLAY (organic-rich; nanno-, foram-bearing): homogenous dusky yel. brown (5YR2/2); only about 1/2 of the section consists of solid, undisturbed sediment, rest is coring voids and sediment "mush" (some voids filled with styrofoam)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: TC07 Sect.: 1 (0-150 cmbsf) Lat.: 23 20.06 N Long.: 111 01.02 W
Water Depth: 978 m



Remarks

SILTY CLAY (organic-rich; nanno-, foram-bearing):
0-104 c m: homogenous ol. black (5Y2/2) grading downward to ol. gray (5Y4/2)

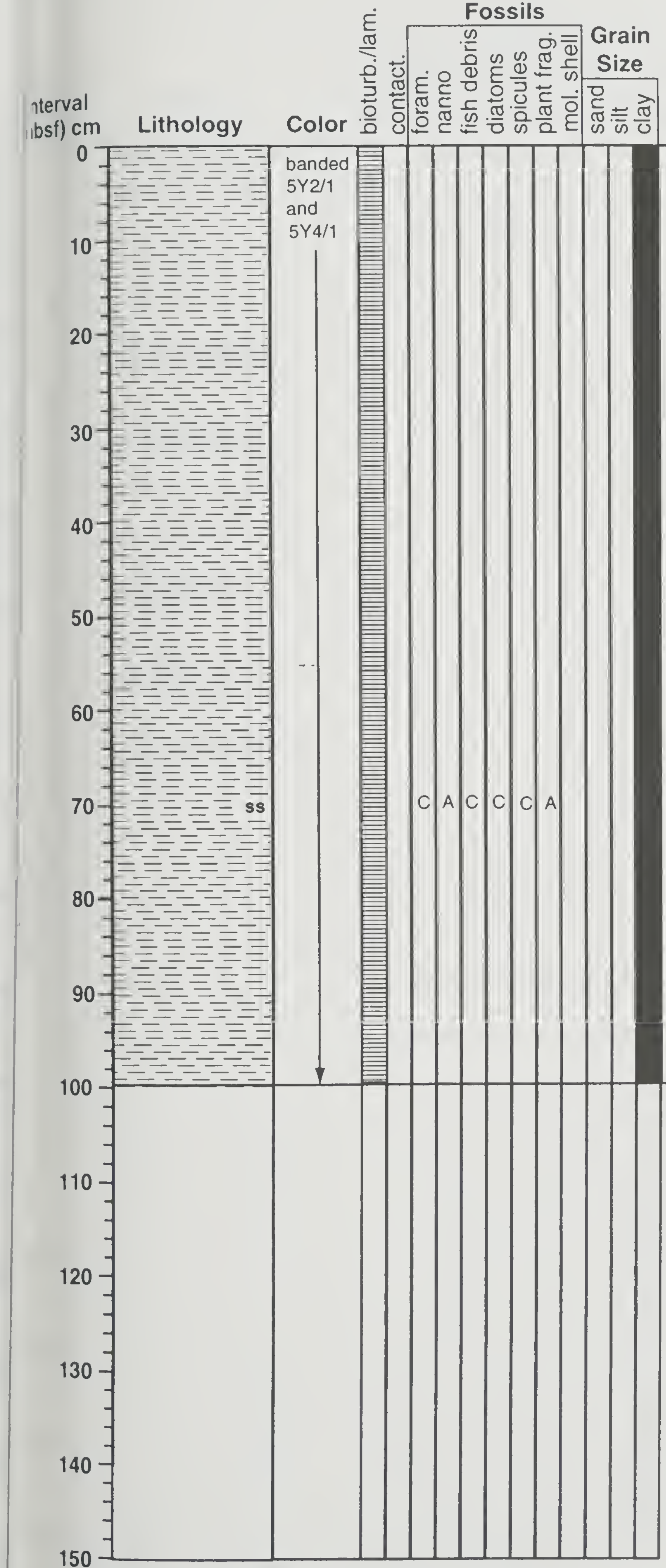
104-150 cm: bioturbated, pedominantly mod. ol brown (5Y4/4) w/ darker large burrow mottles (mostly 5Y4/2)

150 cm = bottom of sect. 1; 150 cmbsf = base of core TC7

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC08 Sect.: 10 (0-100 cmbsf) Lat.: 23 28 N Long.: 111 35.91 W

Water Depth: 705 m



Remarks

CLAY (organic-rich; nanno-, foram--bearing): lighter-dark bands (but all dark olive) on a cm-scale; darkest bands are ol. black (5Y2/1);' "lighter" bands are ol. gra (5Y3/1 to 5Y4/1)

smear slides

ss 70 cm

A: clay; nannos; organic matter

C: forams; pyrite; fish debris; sponge spic.; diatoms (girdle bands, fragments, some whole, small centrics)

R: rads

Most abundant foraminifera

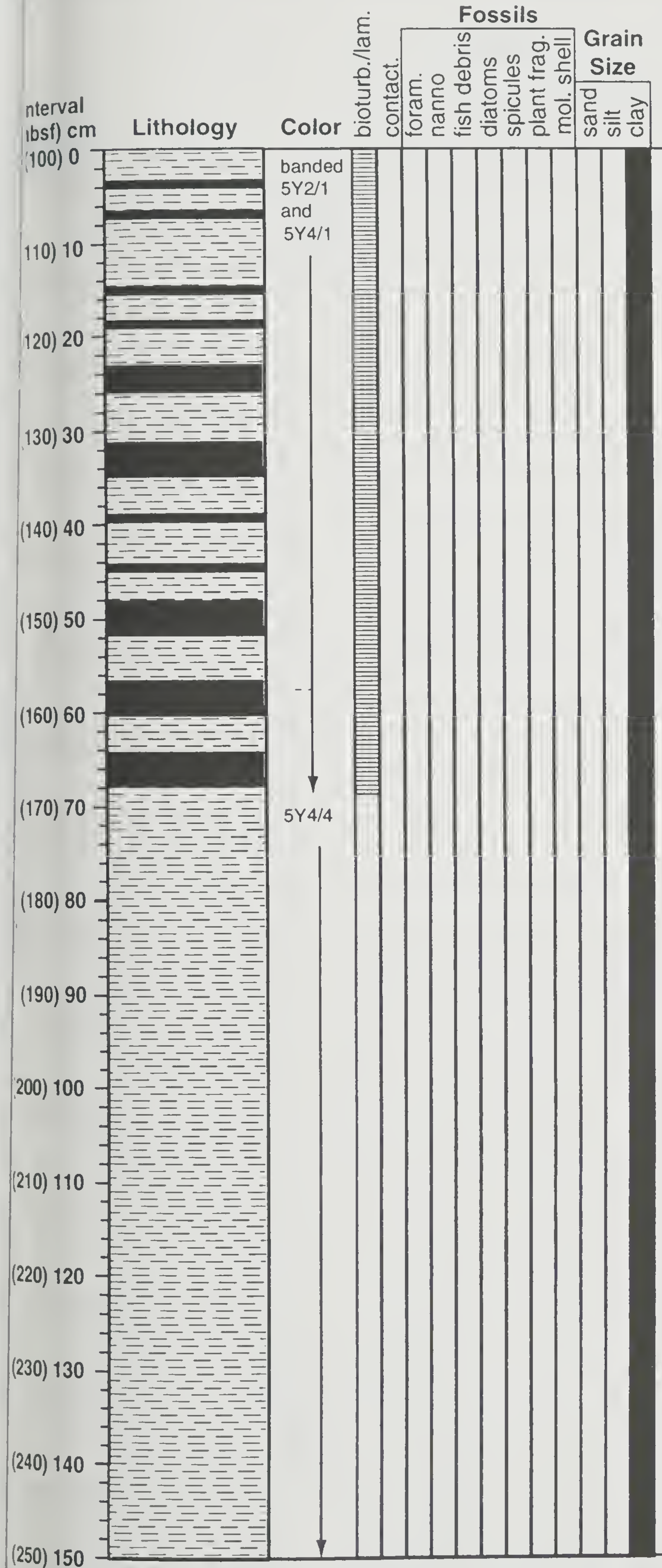
PC8-10 0-2 cm

Bolivina sp., Bolivina seminuda, Bolivina argentea, Angulogerina sp., Uvigerina sp

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC08 Sect.: 9 (100-250 cmbsf) Lat.: 23 28 N Long.: 111 35.91 W
Water Depth: 705 m



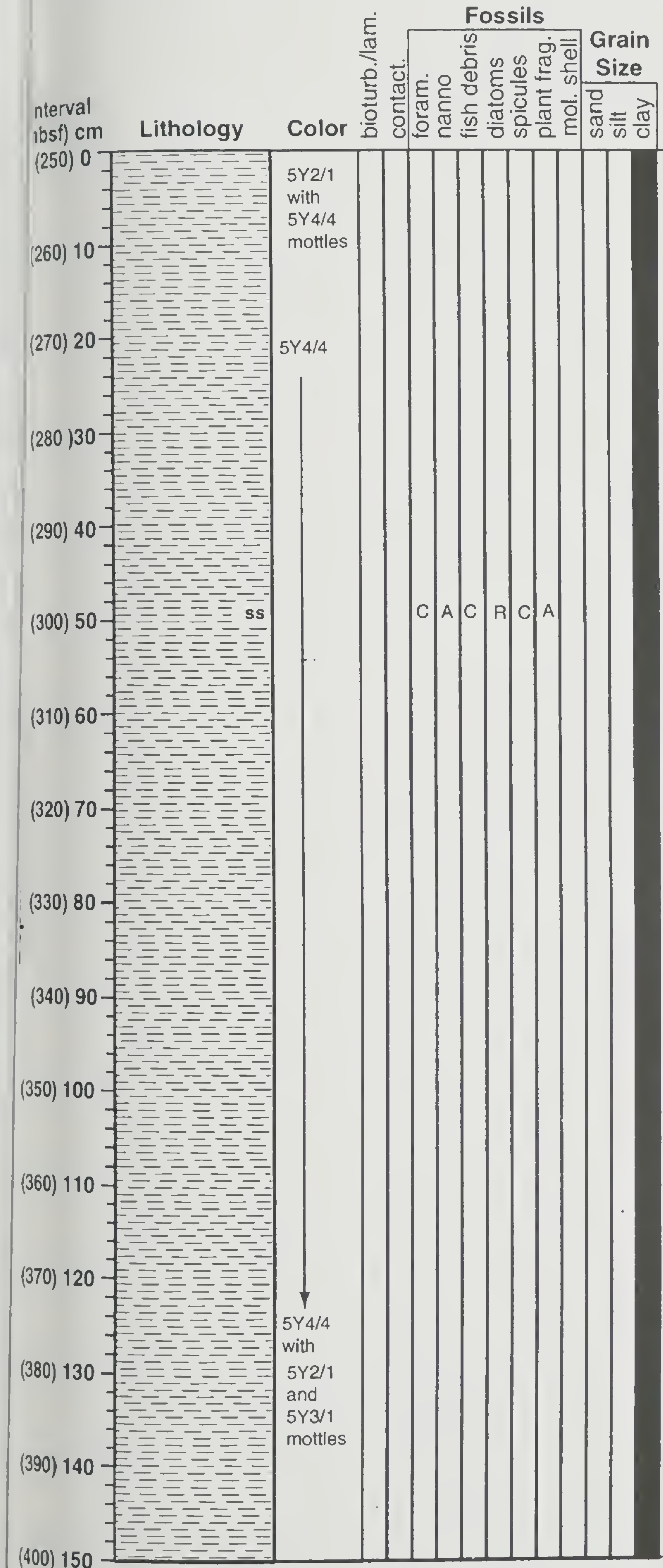
Remarks

CLAY (organic-rich; nanno-, foram--bearing):
0-68 cm: lighter-dark bands (but all dark olive) on a cm-scale
darkest bands are ol. black (5Y2/1); ■ "lighter" bands are ol. gray (5Y3/1 to 5Y4/1) ▤
68-150 cm: homogeneous mod. ol. brown (5Y4/4)

150 cm = bottom of sect. 9

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC08 Sect.: 8 (250-400 cmbsf) Lat.: 23 28 N Long.: 111 35.91 W
Water Depth: 705 m



150 cm = bottom of sect. 8

Remarks

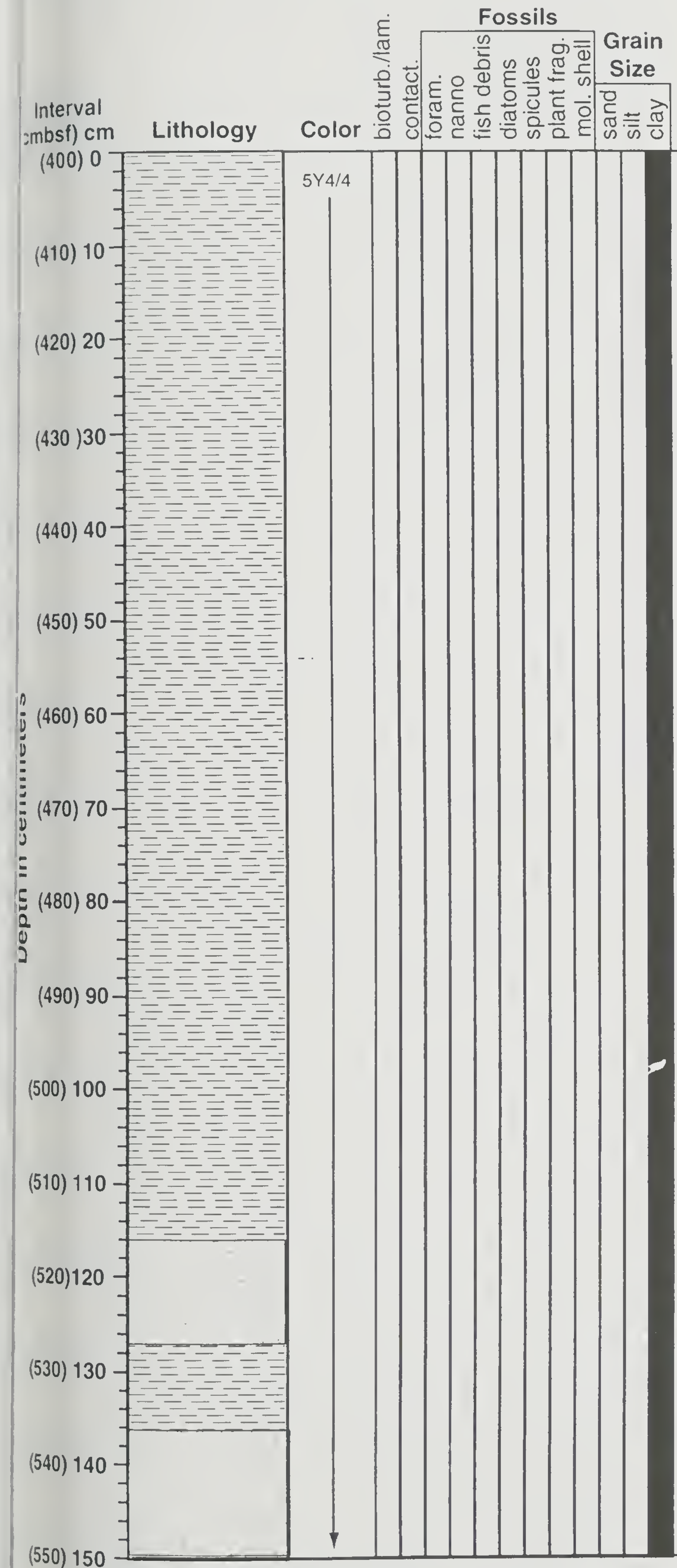
CLAY (organic-rich; nanno-, foram--bearing):
0-20 cm: bioturbated ol. black (5Y2/1) w/ lighter burrow mottles (5Y4/4)
20-125 cm: more or less homogeneous mod. ol. brown (5Y4/4)
125-150 cm: 5Y4/4 with intense, darker (5Y3/1 and 5Y2/)1 burrow mottling

Smear slides

ss 50 cm
A: clay; nannos; organic matter
C: forams; pyrite; fish debris; sponge spic.;
R: rads; diatoms

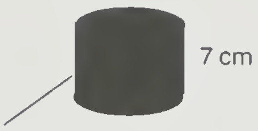
Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: PC08 Sect.: 7 (400-557 cmbsf) Lat.: 23 28 N Long.: 111 35.91 W
Water Depth: 705 m



Remarks

CLAY (organic-rich; nanno-, foram--bearing): more or less homogeneous mod. ol. brown (5Y4/4) with horizontal gas cracking throughout; some burrow mottling of ol. gray (5Y4/1)
116-126 cm and 136-150 cm disturbed by gas?

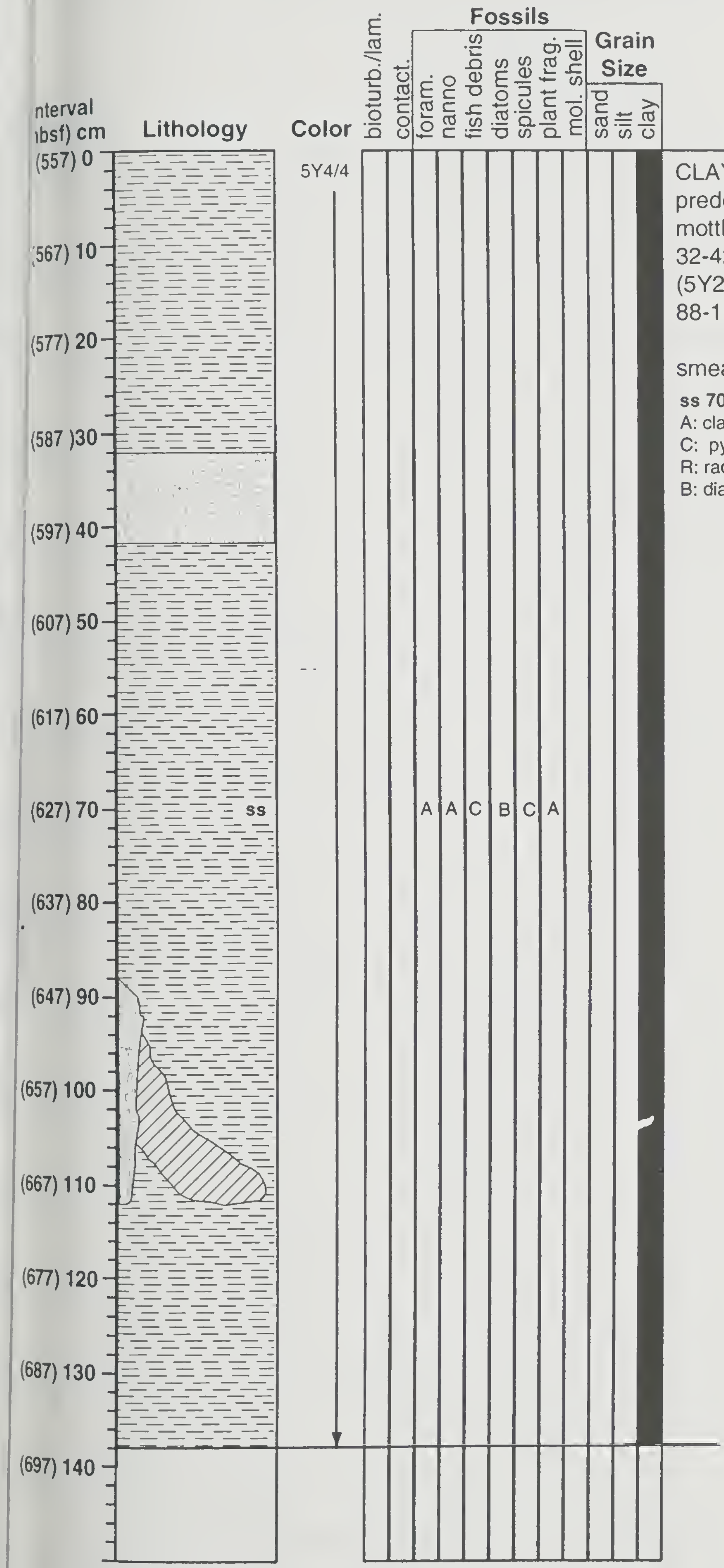


7 cm extra extruded from between s. 7 & s. 6; add to bottom of sect. 7

150 cm = bottom of sect. 7 ;=550 cmbsf +7 cm = 557 cmbsf

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC08 Sect.: 6 (557-695 cmbsf) Lat.: 23 28 N Long.: 111 35.91 W
Water Depth: 705 m



Remarks

CLAY (organic-rich; nanno-, foram-bearing):
predom. homogenous mod. ol. brown (5Y4/4); some burrow mottling of ol., black (5Y2/1)
32-42 cm disturbed (soupy) by coring (gas?); also a large, dar
(5Y2/1) mottle (burrow?) with some core disturbance (gas?) @
88-112cm

smear slides

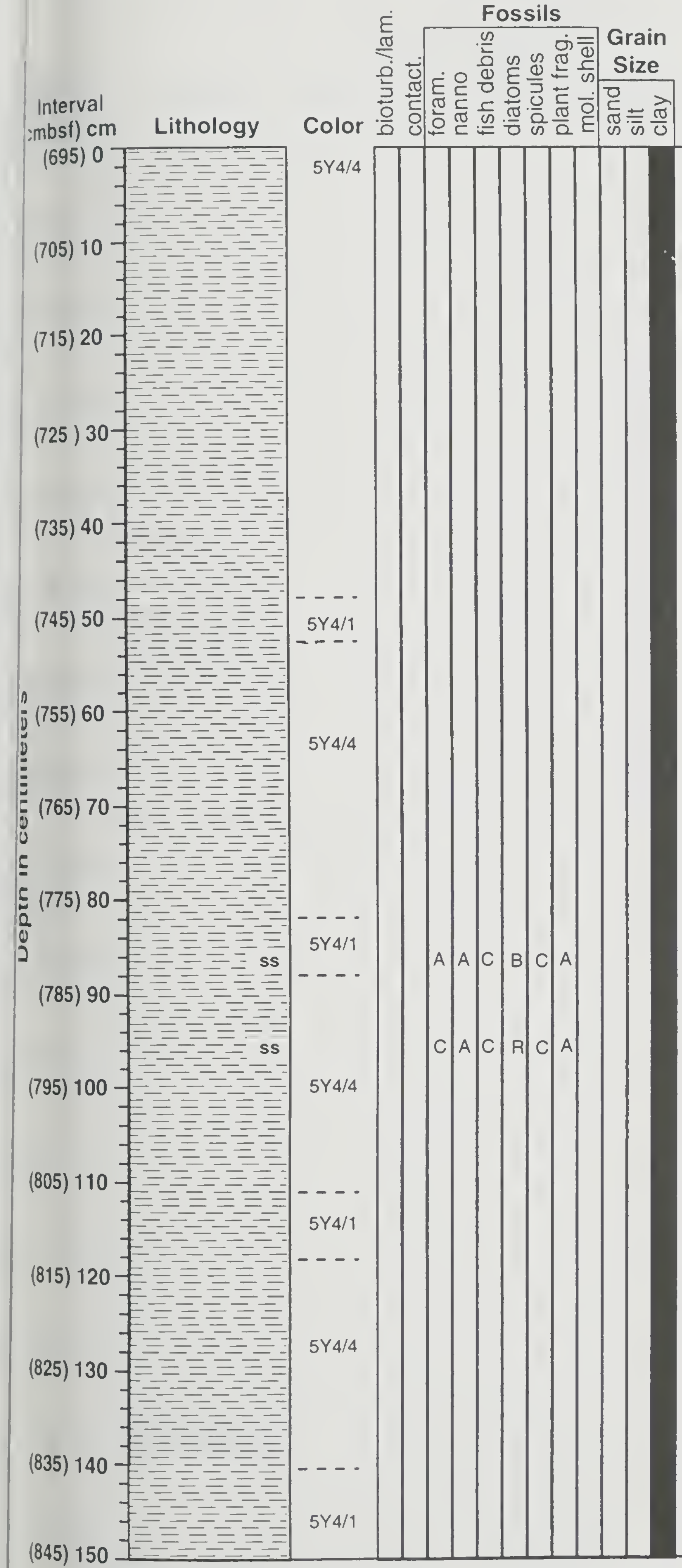
ss 70 cm
A: clay; nannos; forams; organic matter
C: pyrite; fish debris; sponge spic.;
R: rads
B: diatoms

138 cm (695 cmbsf) = bottom of sect. 6

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC08 Sect.: 5 (695-845 cmbsf) Lat.: 23 28 N Long.: 111 35.91 W

Water Depth: 705 m



Remarks

CLAY (organic-rich; nanno-, foram-bearing): predom. homogenous mod. ol. brown (5Y4/4); some mottled zones of ol. black (5Y2/1) in a 5Y4/4 matrix at 48-52 cm, 82-88 cm, 112-118 cm, abd 140-150 cm.

smear slides

ss 87 cm
A: clay; organic matter
C: forams; pyrite; fish debris; sponge spic.; nannos
R: rads; diatoms

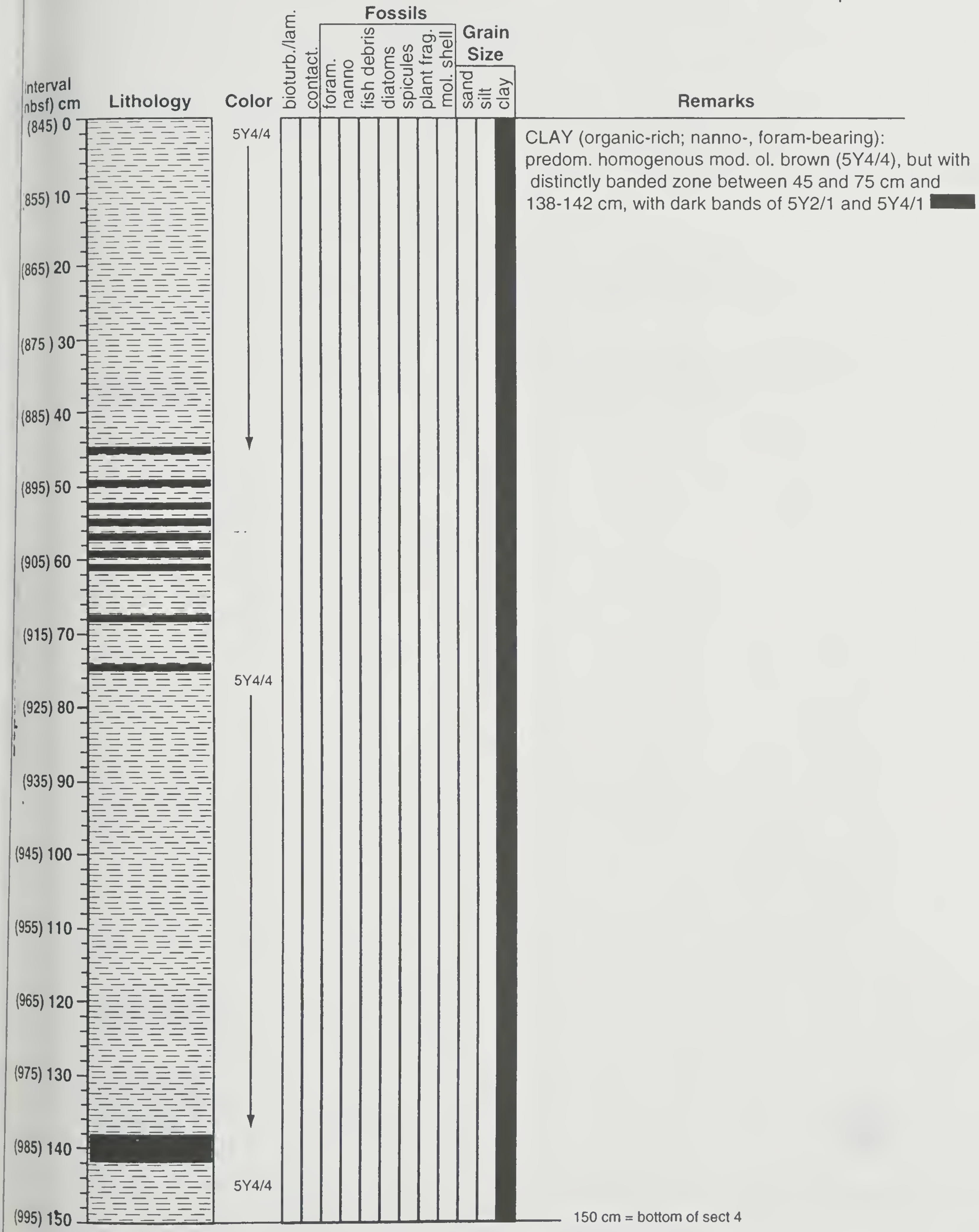
ss 97 cm
A: clay; organic matter; nannos
C: forams; pyrite; fish debris; sponge spic.; lithic fragments
R: rads; diatoms

150 cm = bottom of sect 5.

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC08 Sect.: 4 (845-995 cmbsf) Lat.: 23 28 N Long.: 111 35.91 W

Water Depth: 705 m



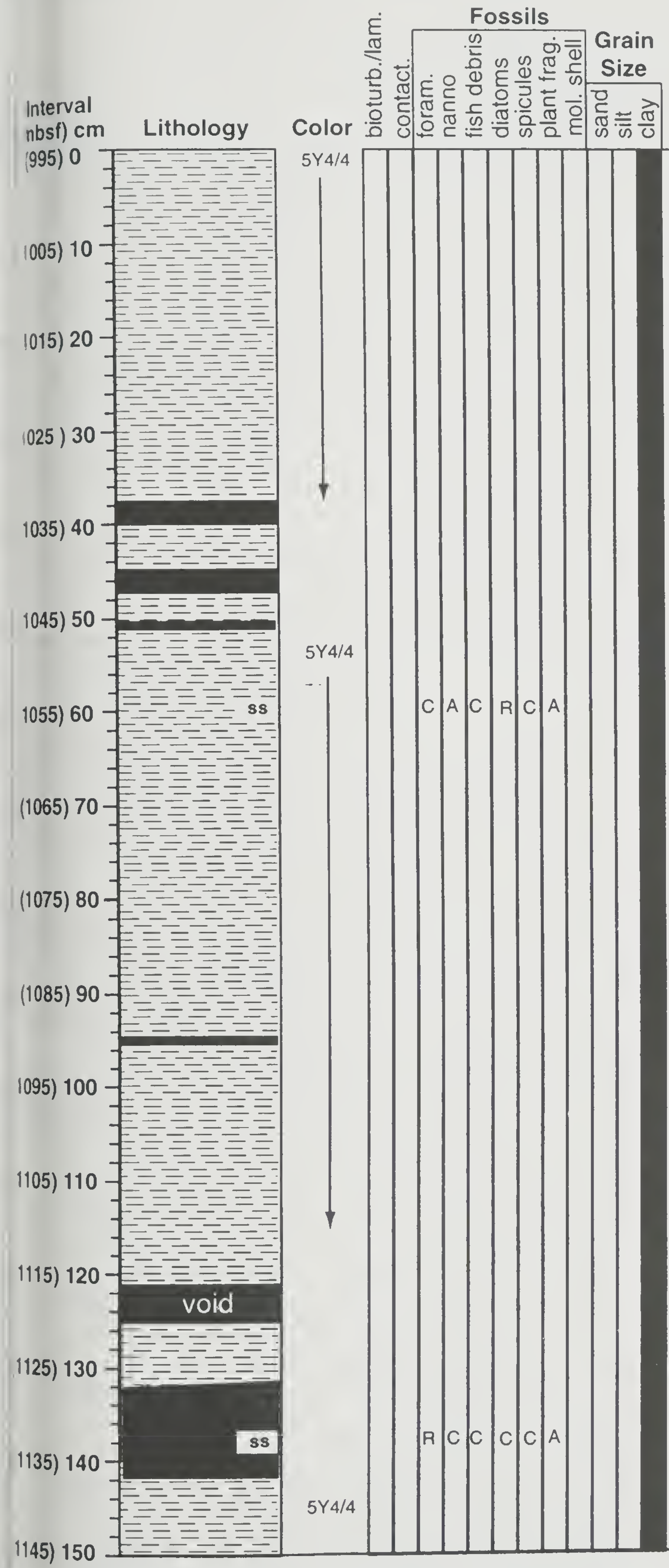
CLAY (organic-rich; nanno-, foram-bearing): predom. homogenous mod. ol. brown (5Y4/4), but with distinctly banded zone between 45 and 75 cm and 138-142 cm, with dark bands of 5Y2/1 and 5Y4/1 ▬

150 cm = bottom of sect 4

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

)XMZ01MV Core: PC08 Sect.: 3 (995-1158 cmbsf) Lat.: 23 28 N Long.: 111 35.91 W
Water Depth: 705 m



Remarks

CLAY (organic-rich; nanno-, foram-bearing): predom. homogenous mod. ol. brown (5Y4/4), but with distinct dark bands of 5Y2/1 and 5Y4/1as indicated ■

smear slides

ss 87 cm
A: clay; nannos; organic matter
C: forams; pyrite; fish debris; sponge spic.
R: rads; diatoms

ss 139 cm
A: clay; organic matter
C: pyrite; nannos; fish debris; sponge spic.; lithic fragments; diatoms (*Azpeitia; Chaetroceras* resting spores; *Ethmodiscus; Diploneis; Asteromphalus; Raphoneis*)
R: rads; forams

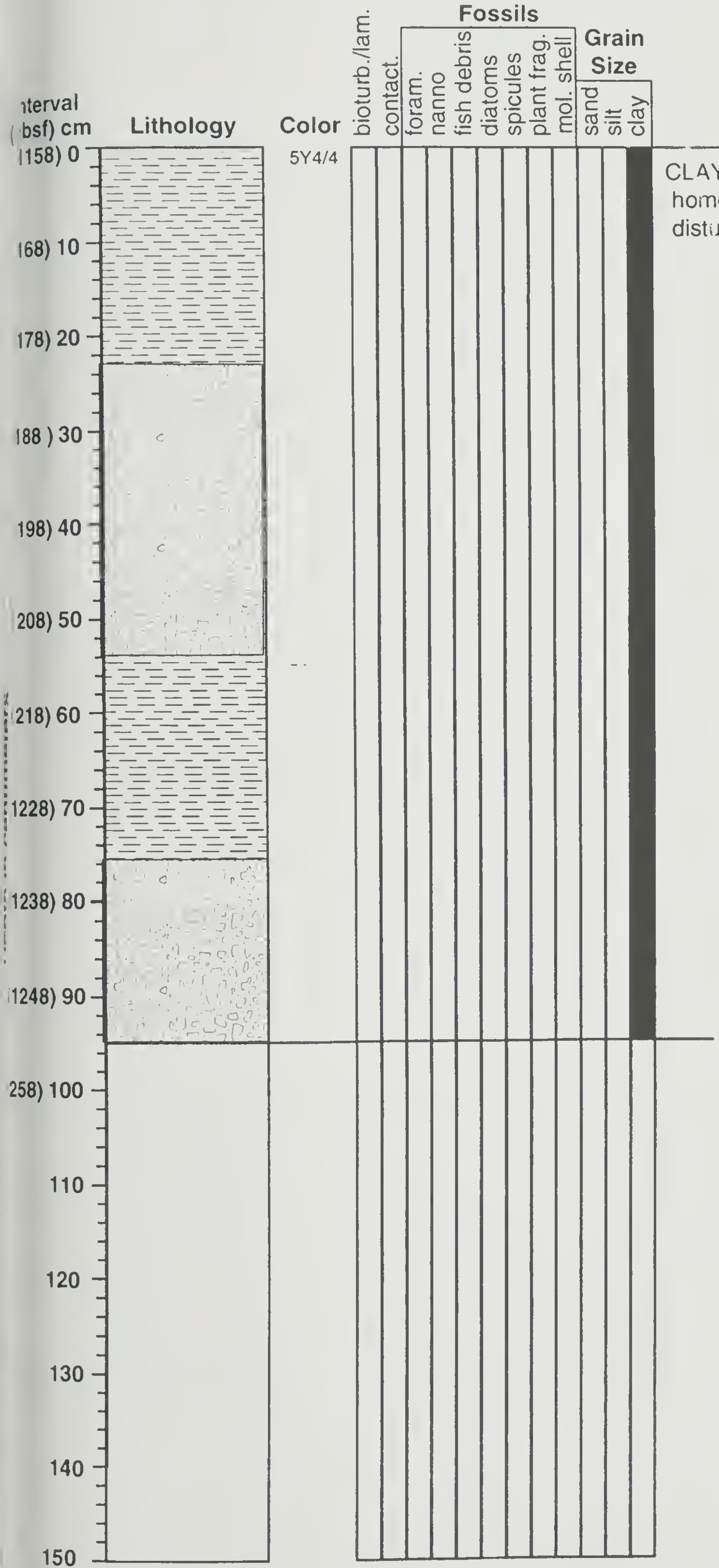
150 cm = bottom of sect. 3

13 cm extra extruded from between s. 3 & s. 2
add to bottom of s. 3 (=1145+13 = 1158 cmbsf

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC08 Sect.: 2 (1158-1253 cmbsf) Lat.: 23 28 N Long.: 111 35.91 W

Water Depth: 705 m



Remarks

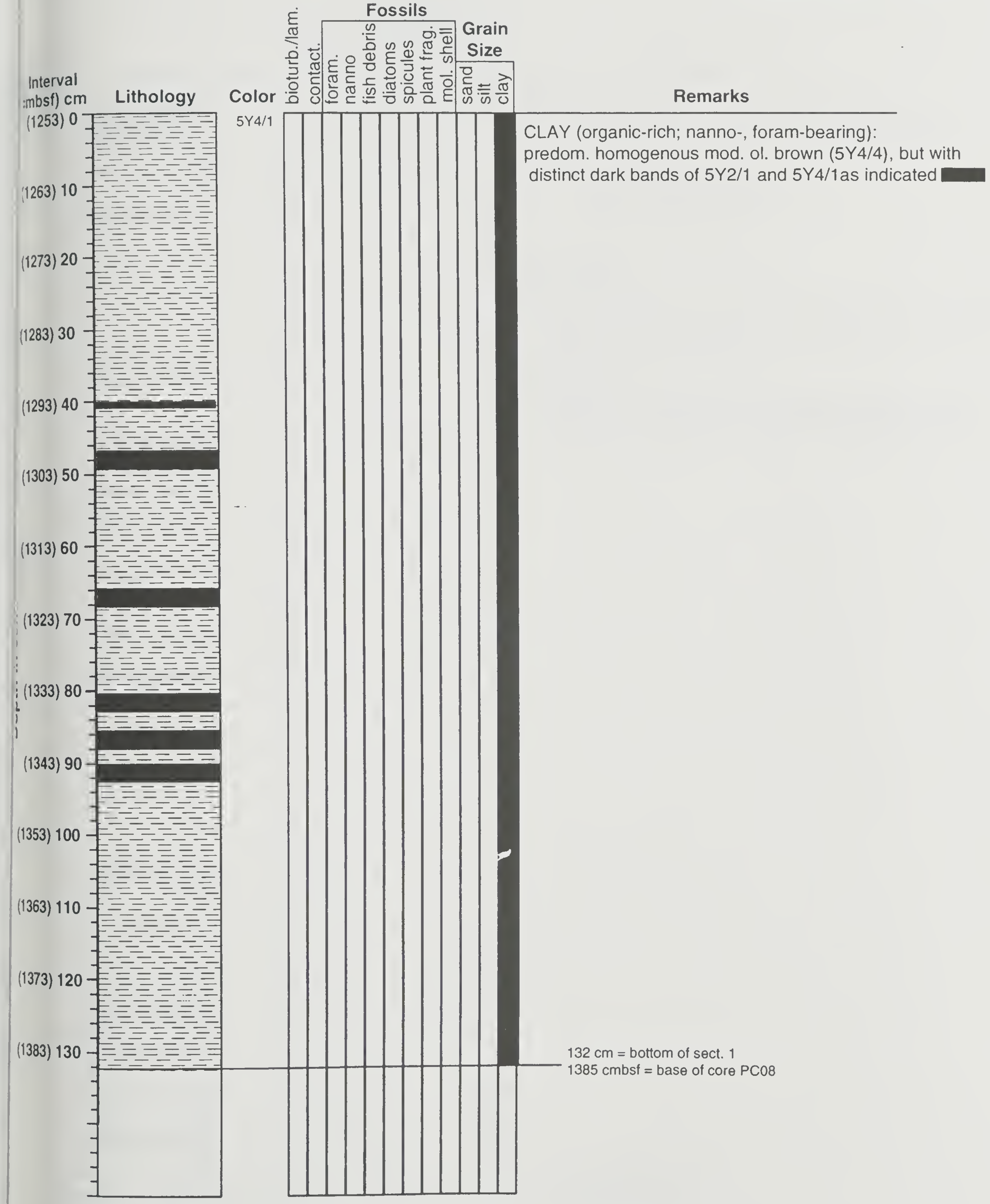
CLAY (organic-rich; nanno-, foram-bearing): homogenous mod. ol. brown (5Y4/4), with disturbed (soupy) zones (gas?) @ 23-54 and 75-95 cm

95 cm = bottom sect. 2 (1253 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC08 Sect.: 1 (1253-1385 cmbsf) Lat.: 23 28 N Long.: 111 35.91 W
Water Depth: 705 m

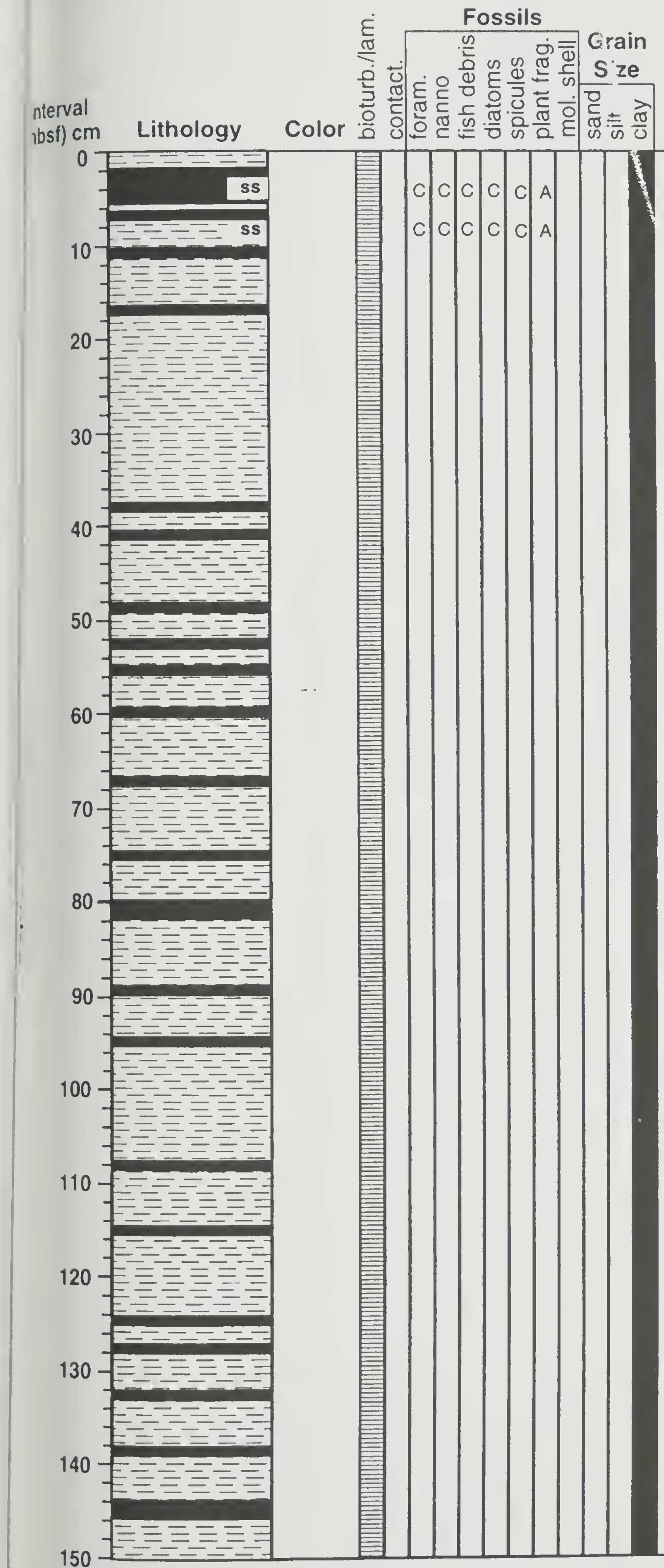


CLAY (organic-rich; nanno-, foram-bearing):
predom. homogenous mod. ol. brown (5Y4/4), but with distinct dark bands of 5Y2/1 and 5Y4/1as indicated ■

132 cm = bottom of sect. 1
1385 cmbsf = base of core PC08

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: TC08 Sect.: 2 (0-150 cmbsf) Lat.: 23 28 N Long.: 111 35.91 W
Water Depth: 705 m



Remarks

CLAY (organic-rich):
basic stratigraphy is cm-scale interlayering of light and dark bands. There are some slight variations in color, but the basic colors are:

light: mod. ol. brown, 5Y4/4
dark: ol. black, 5Y2/1

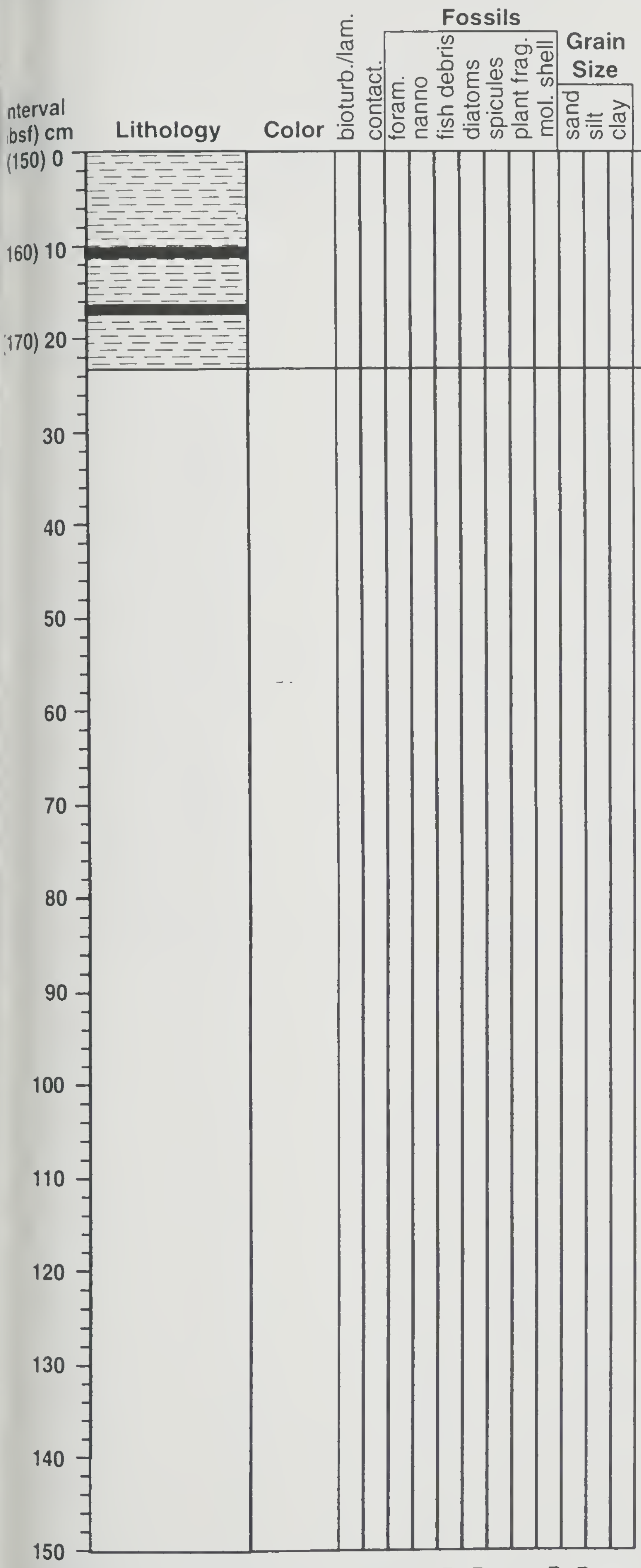
smear slides

ss 4 cm (dark)
A: clay; organic matter
C: forams; rads; pyrite; nannos; lithic fragments; sponge spic.; diatoms (girdle bands; *Odontella alternans; Nitzschia; Paralia; Coscinodiscus; Raphonei*
Chaetoceros resting spores)

ss 8 cm (light)
A: clay; organic matter
C: forams; nannos; rads; pyrite; nannos; sponge spic.; diatoms (girdle bands; *Actinoptychus; Nitzschia; Cyclotella;Thalassiosira; Azpeitia; Thalassionema; Hemidiscus; Fragilariopsis doliolus; Neodenticula semina*

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: TC08 Sect.: 1 (100-173 cmbsf) Lat.: 23 28 N Long.: 111 35.91 W
Water Depth: 705 m



Remarks

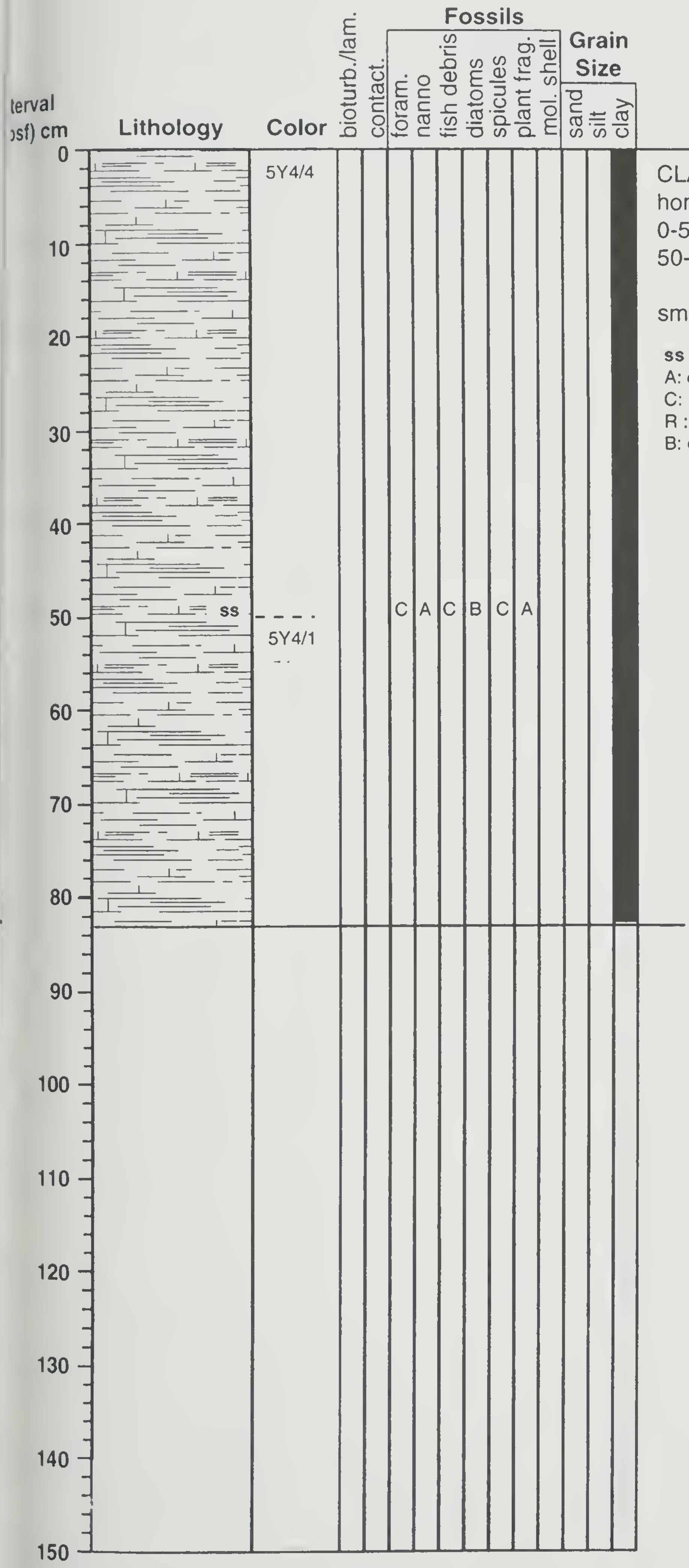
CLAY (organic-rich): light and dark bands as in sec. 2

150 cm = bottom of sect. 2; 173 cmbsf = base of core TC08

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC09 SECTION: 10 (0-83 cmbsf) Lat.: 23 13.11 N Long.: 111 04.75 W

Water Depth: 1261 m



83 cm = bottom sect. 10

Remarks

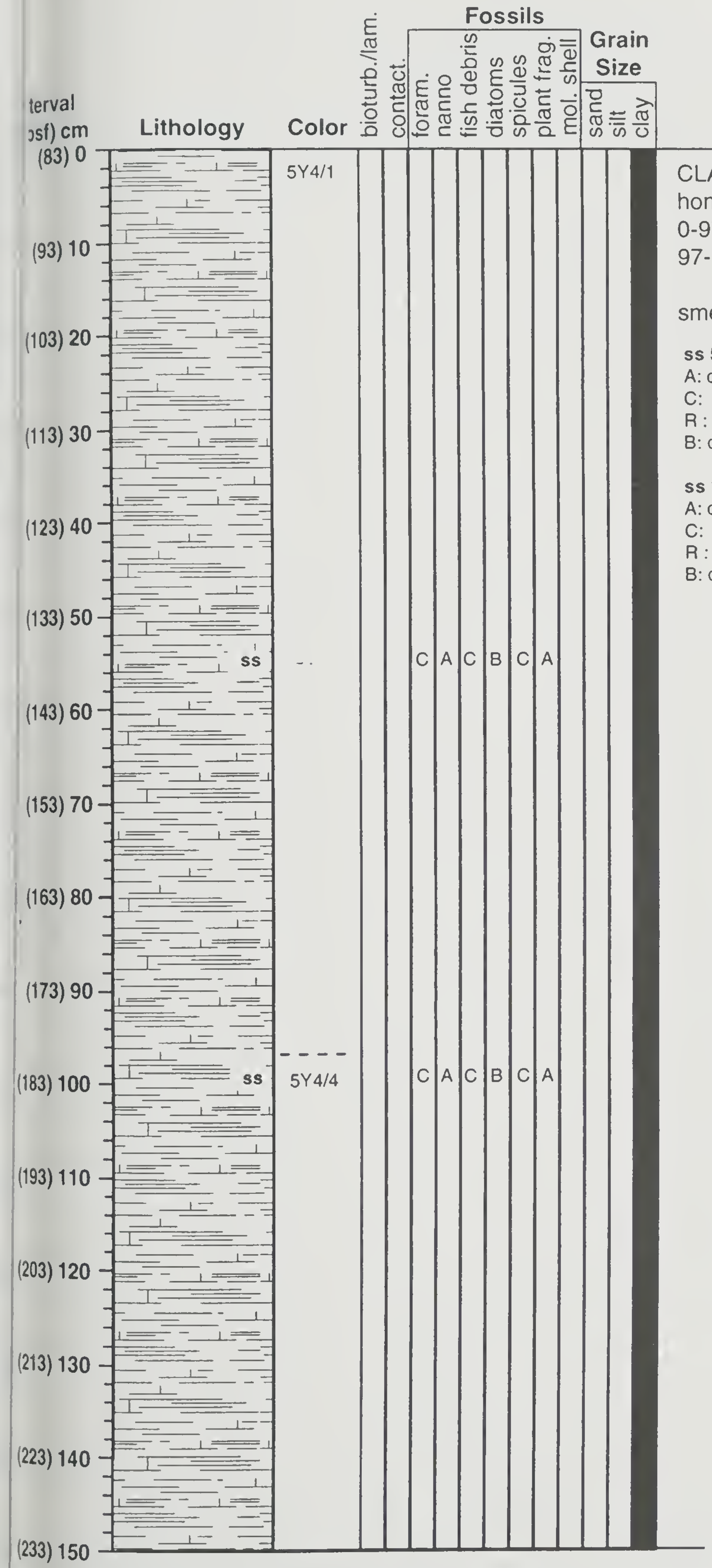
CLAY(organic rich; nanno-bearing):
homogeneous
0-50 cm: mod. olive gray (5Y4/4)
50-83 cm: ol. gray (5Y4/1)

smear slides

ss 50 cm (dom. lith)
A: clay; nannos
C: organic matter; forams; pyrite; sponge spic.
R : rads.
B: diatoms

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC09 SECTION: 9 (83-233 cmbsf) Lat.: 23 13.11 N Long.: 111 04.75 W
Water Depth: 1261 m



Remarks

CLAY(organic rich; nanno-bearing):
homogeneous
0-97 cm: ol. gray (5Y4/1)
97-150 cm: mod. olive brown (5Y4/4)

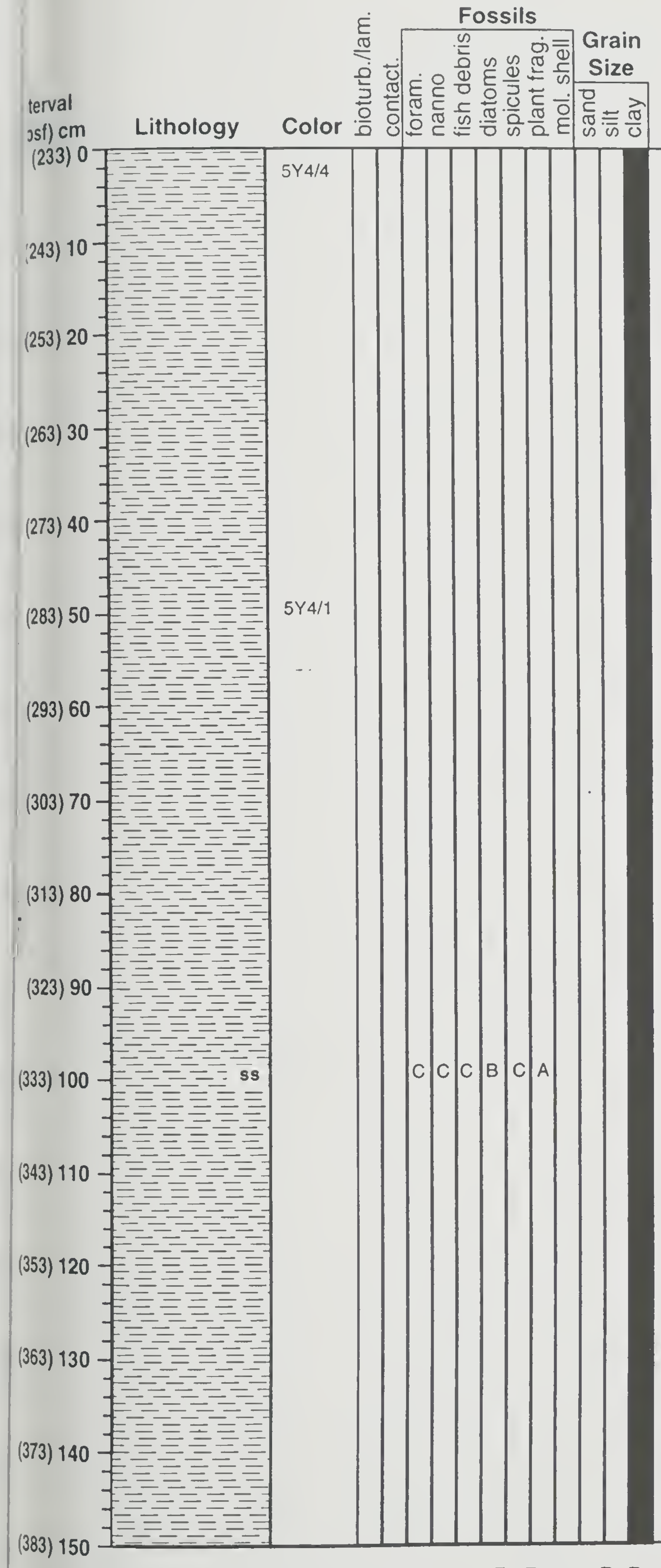
smear slides

ss 55 cm (darker lith)
A: clay; nannos; organic matter
C: forams; pyrite; sponge spic.; fish debris
R : rads.
B: diatoms

ss 100 cm (lighter lith)
A: clay; nannos; organic matter
C: forams; pyrite; sponge spic.; fish debris
R : rads.
B: diatoms

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC09 SECTION: 8 (233-383 cmbsf) Lat.: 23 13.11 N Long.: 111 04.75 W
Water Depth: 1261 m



Remarks

CLAY (organic rich):
homogeneous (bioturb.) mod. olive brown (5Y4/4) with gradual change to darker (ol. gray, 5Y4/1) @ ca. 50 cm

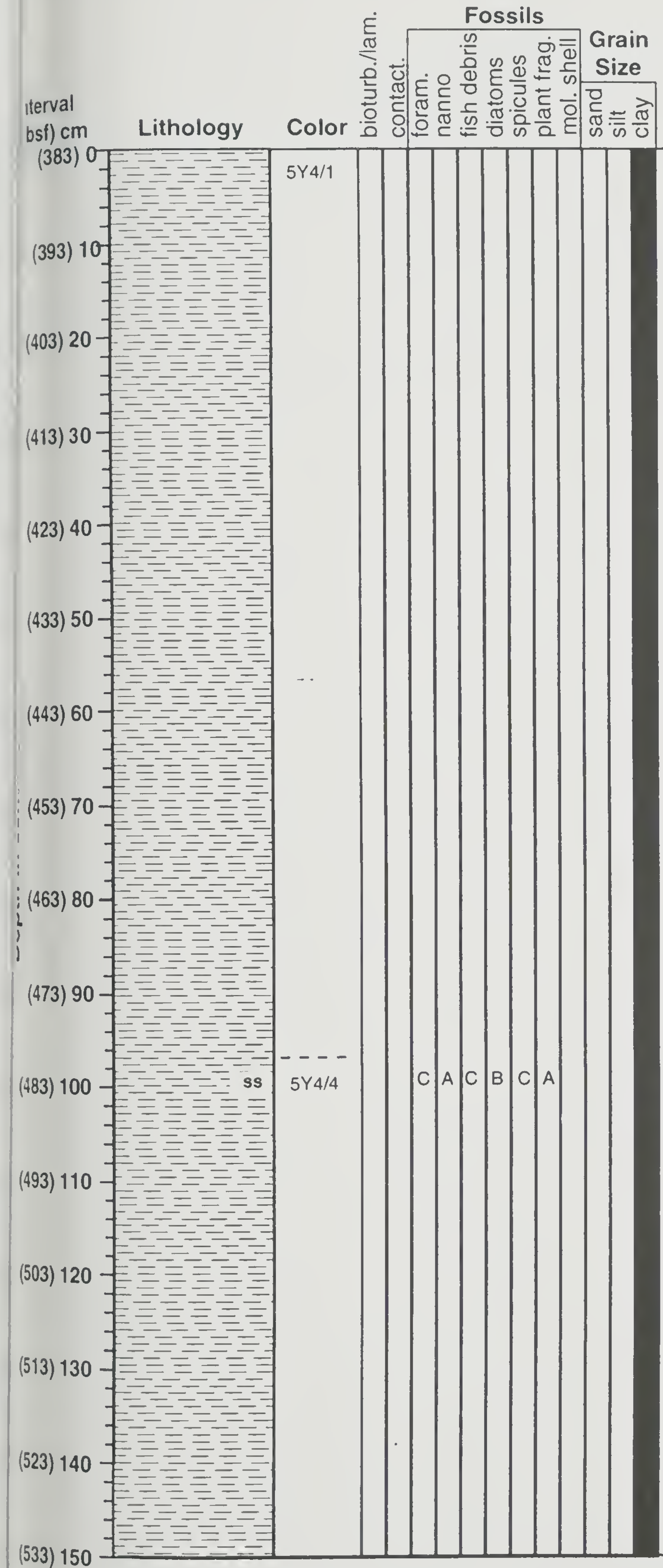
smear slides

ss 100 cm
A: clay; organic matter
C: forams; nannos; pyrite; sponge spic.; fish debris
R : rads.
B: diatoms

150 cm = bottom sect. 8

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC09 SECTION: 7 (383-533 cmbsf) Lat.: 23 13.11 N Long.: 111 04.75 W
Water Depth: 1261 m



Remarks

CLAY(organic rich):
homogeneous
0-97 cm: ol. gray (5Y4/1)
97-150 cm: mod. olive brown (5Y4/4)

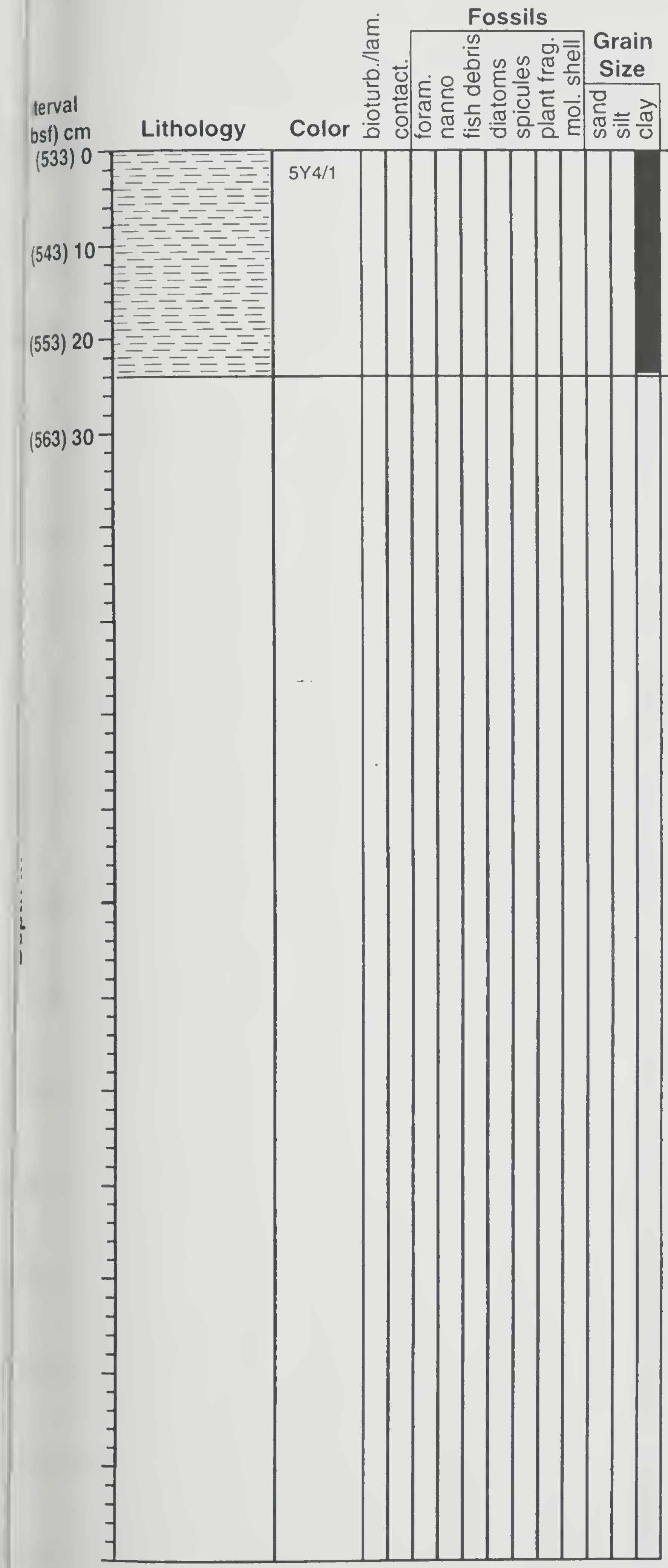
smear slides

ss 100 cm
A: clay; organic matter
C: forams; nannos; pyrite; sponge spic.; fish debris; lithic grains
R : rads.; diatoms; carbonate rhombs

150 cm = bottom sect. 7

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC09 SECTION: 6 (533-557 cmbsf) Lat.: 23 13.11 N Long.: 111 04.75 W
Water Depth: 1261 m



Remarks

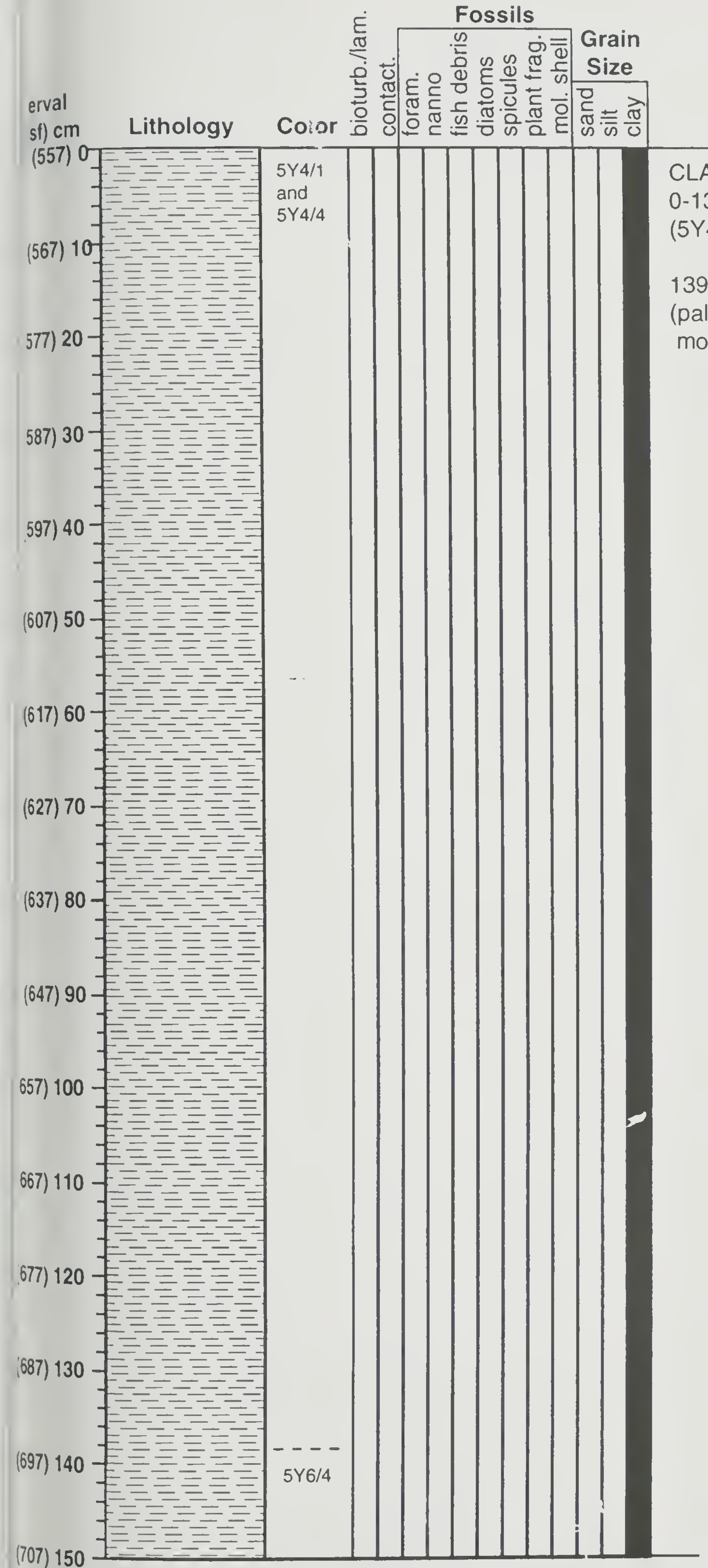
CLAY (organic rich):
homogeneous; burrow-mottled
ol. gray (5Y4/1) and mod. olive brown (5Y4/4)

smear slides

24 cm = bottom sect. 6

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC09 SECTION: 5 (557-707 cmbsf) Lat.: 23 13.11 N Long.: 111 04.75 W
Water Depth: 1261 m



Remarks

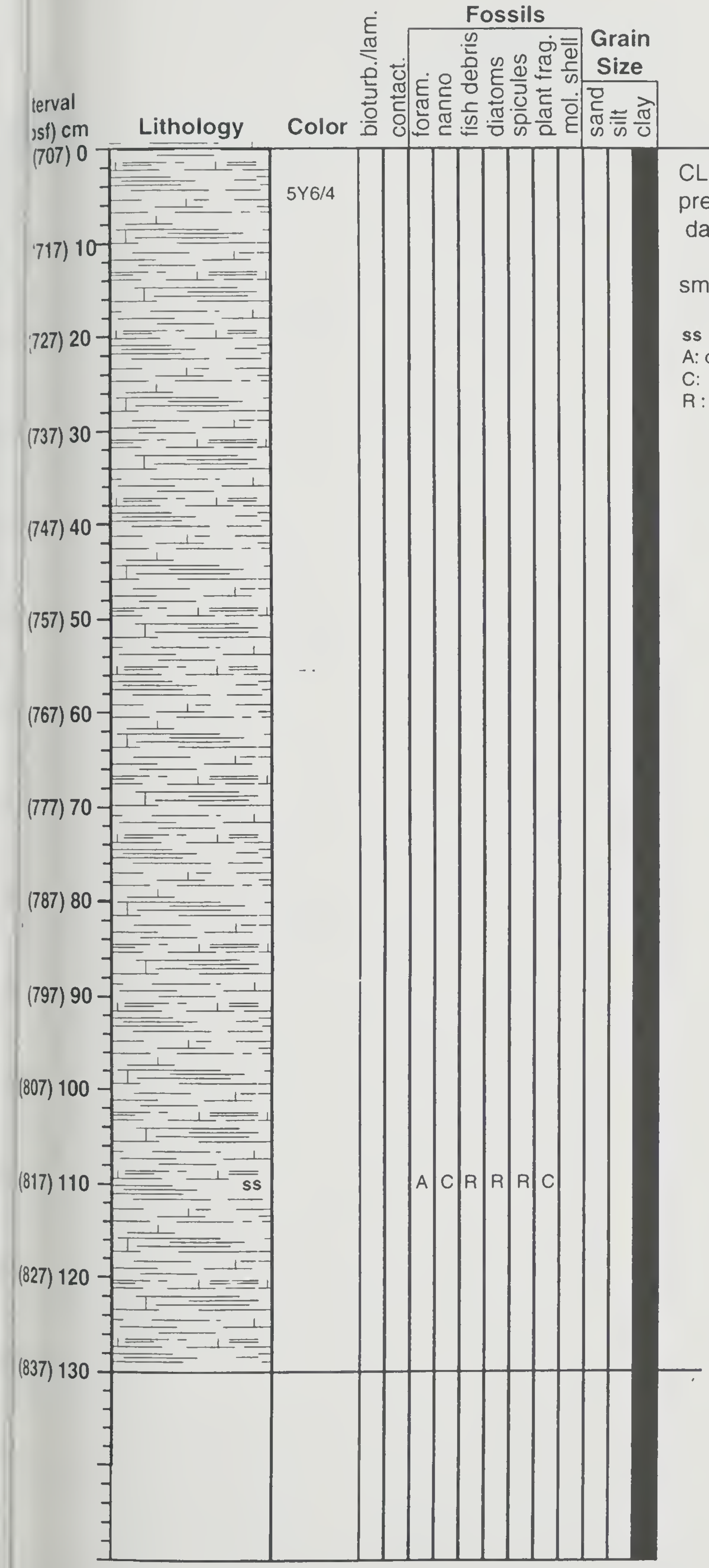
CLAY (organic rich; nanno- and foram-bearing):
0-139 cm: predominantly homogeneous ol. gray (5Y4/1) with mod. olive brown (5Y4/4) burrow mottles

139-150 cm: matrix is dusky yellow (5Y6/4) with lighter (pale olve, 10Y6/2) and darker (5Y4/4 and 5Y4/1) burrow mottles

150 cm = bottom sect. 5

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC09 SECTION: 4 (707-837 cmbsf) Lat.: 23 13.11 N Long.: 111 04.75 W
Water Depth: 1261 m



Remarks

CLAY (nanno- and foram-bearing):
predominantly homogeneous dusky yellow (5Y6/4) with darker (5Y4/4) burrow mottles

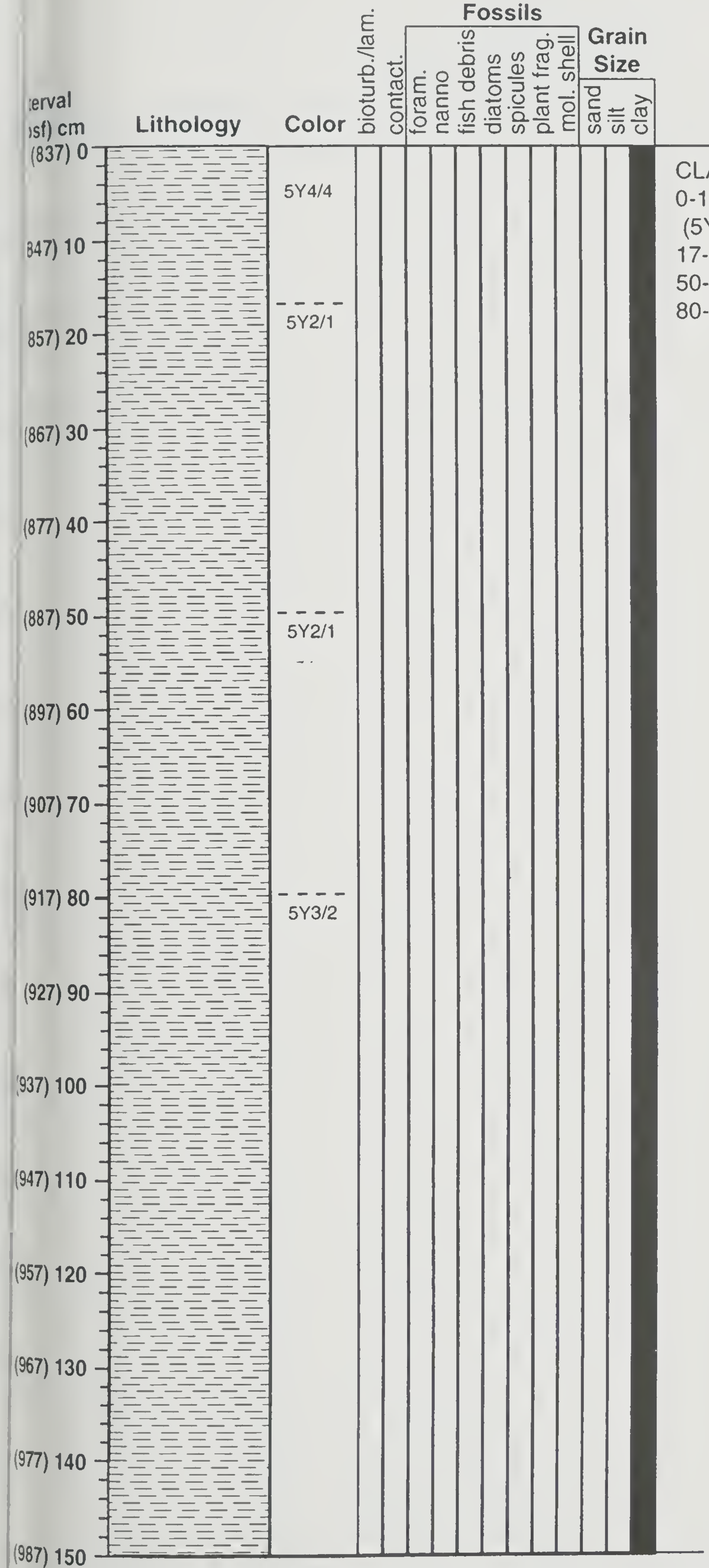
smear slides

ss 110 cm
A: clay; forams
C: nannos; pyrite; fish debris; lithic grains; organic matter
R : diatoms; carbonate rhombs; sponge spic.

130 cm = bottom sect. 4

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC09 SECTION: 3 (837-987 cmbsf) Lat.: 23 13.11 N Long.: 111 04.75 W
Water Depth: 1261 m



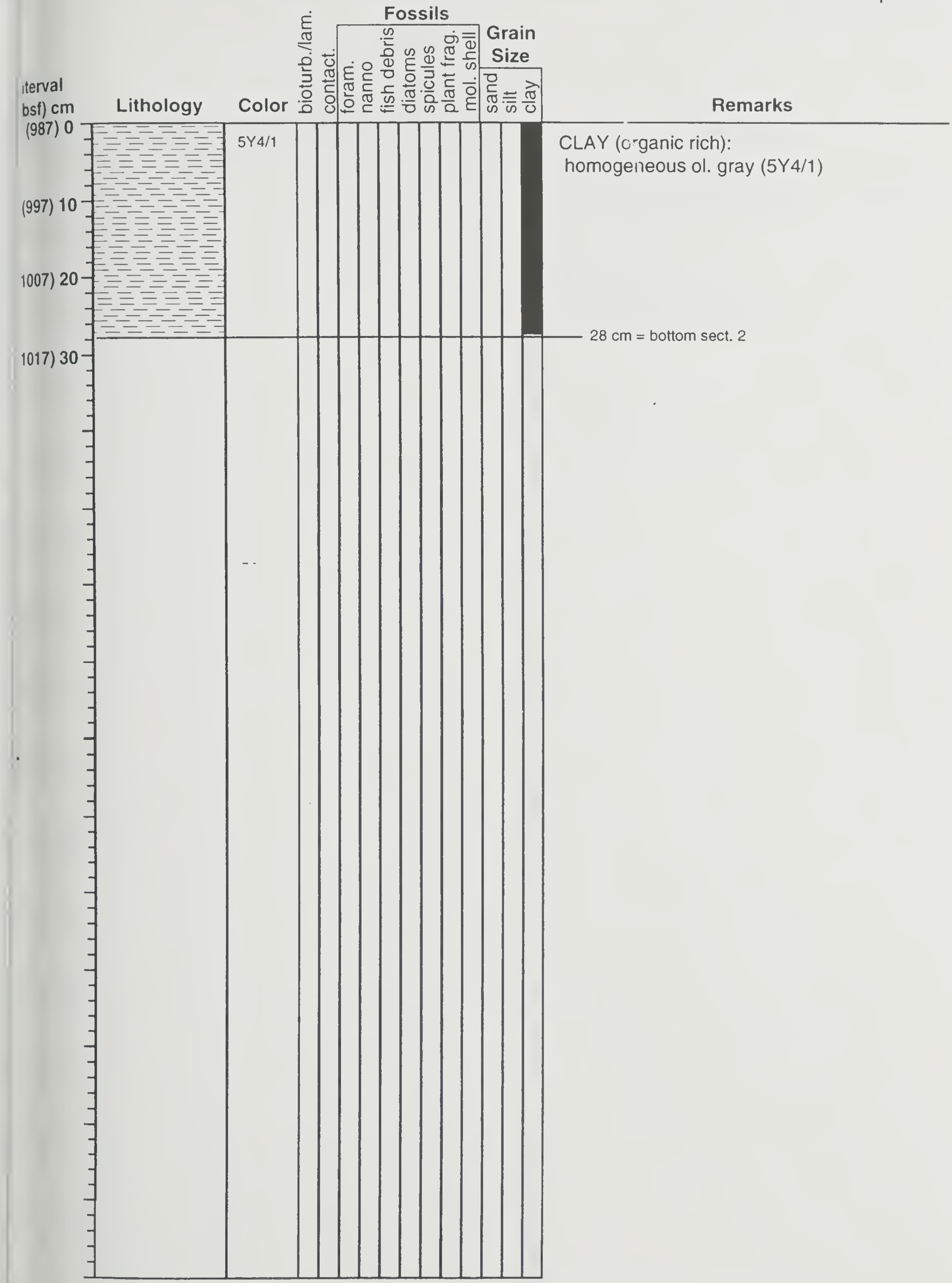
Remarks

CLAY (organic rich):
0-17 cm: predominantly mod. ol. brown (5Y4/4) with olive gra
(5Y3/2) burrow mottles
17-50 cm: homogen. 5Y3/2
50-80 cm: homogen. ol. black (5Y2/1)
80-150 cm: 5Y3/2 w/ sli. lighter burrow mottles

150 cm = bottom sect. 3

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

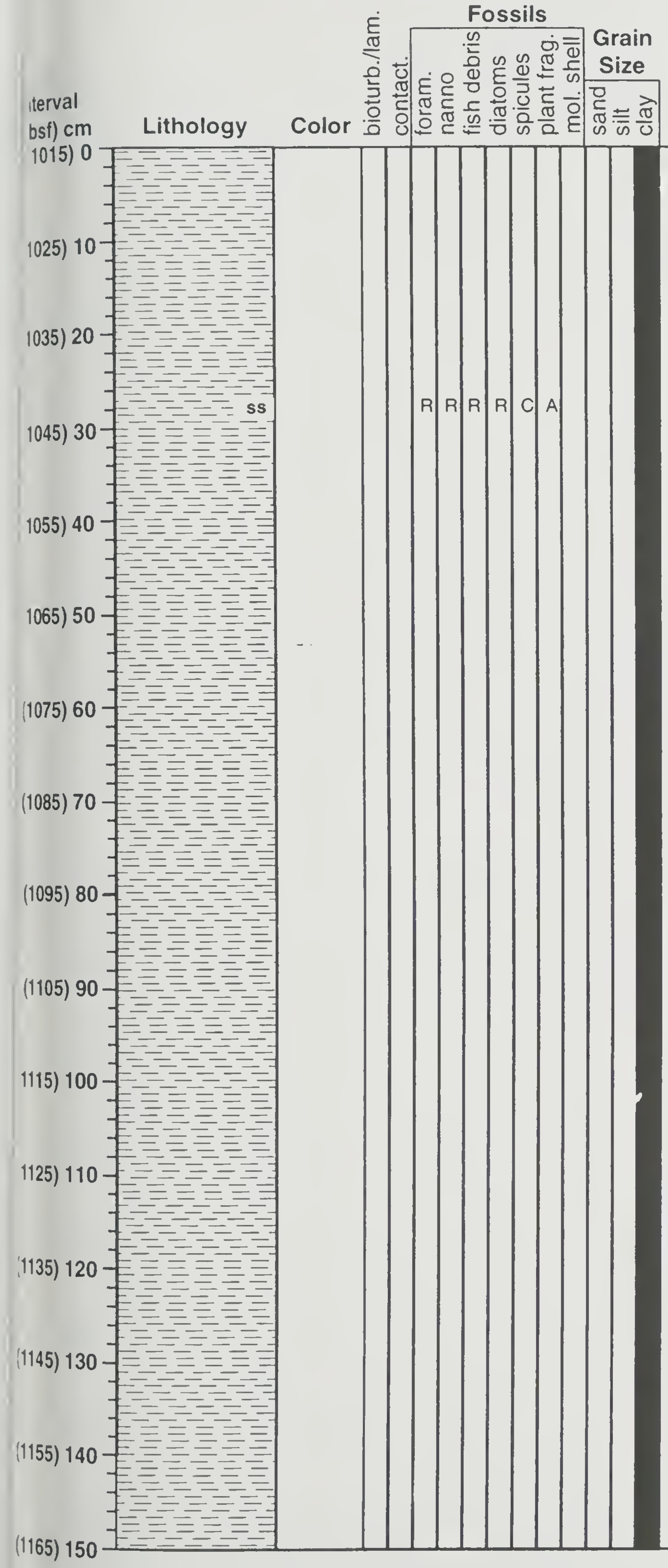
)XMZ01MV Core: PC09 SECTION: 2 (987-1015 cmbsf) Lat.: 23 13.11 N Long.: 111 04.75 W
Water Depth: 1261 m



CLAY (organic rich):
homogeneous ol. gray (5Y4/1)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

)XMZ01MV Core: PC09 SECTION: 1 (1015-1165 cmbsf) Lat.: 23 13.11 N Long.: 111 04.75 W
Water Depth: 1261 m



Remarks

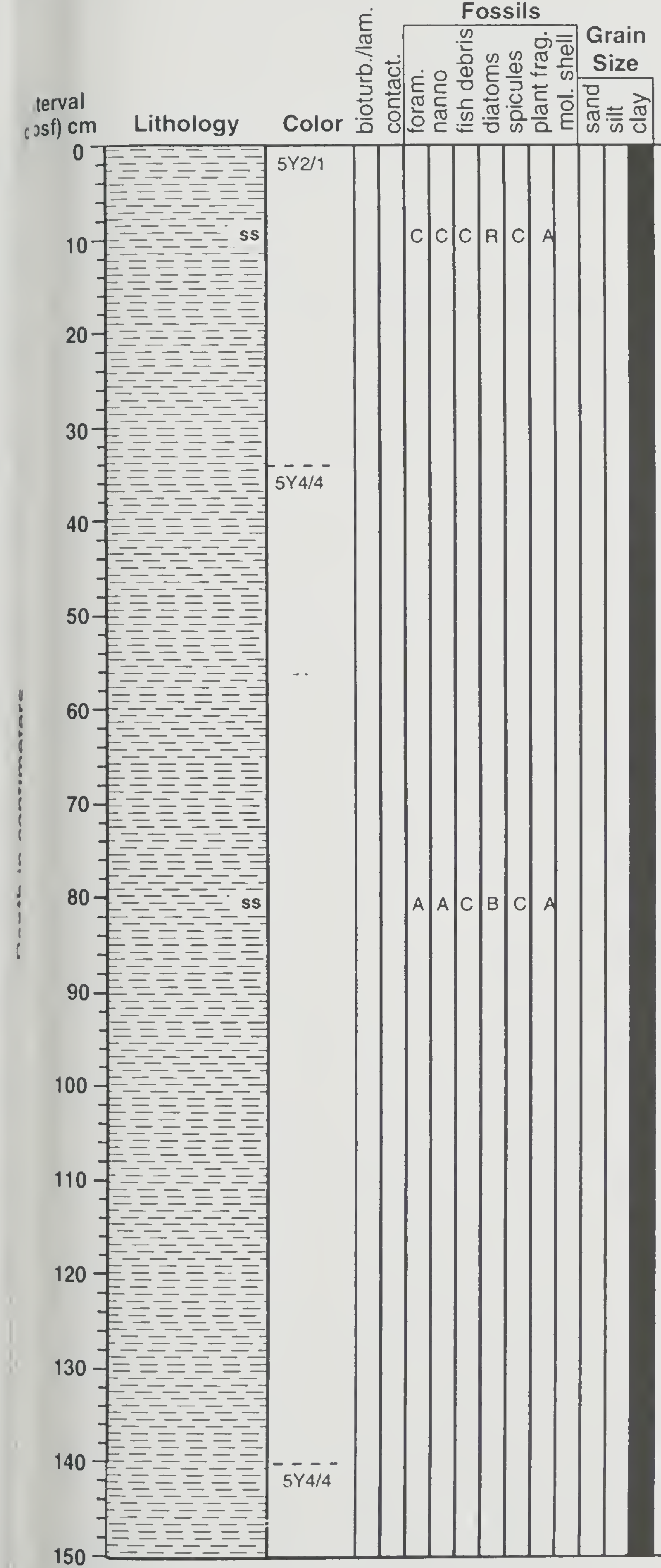
CLAY (organic rich):
mottled olive gray (5Y3/2) and ol. black (5Y2/1)

smear slides
ss 28 cm
A: clay; organic matter
C: pyrite; fish debris; sponge spic.
R : diatoms; forams; nannos

150 cm = bottom sect. 1; 1165 cmbsf = base of core PC09

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

MZ01MV Core: TC09 Sect.: 2 (0-150 cmbsf) Lat.: 23 13.11 N Long.: 111 04.75 W
Water Depth: 1261 m



Remarks

0-34 cm: homogeneous olive black (5Y2/1) = CLAY (organic-rich)
34-140 cm: homogen. mod. ol. brown (5Y4/4) =CLAY (foram-, nanno-bearing)
140-150 cm: homogen. ol. gray (5Y3/2)

smear slides

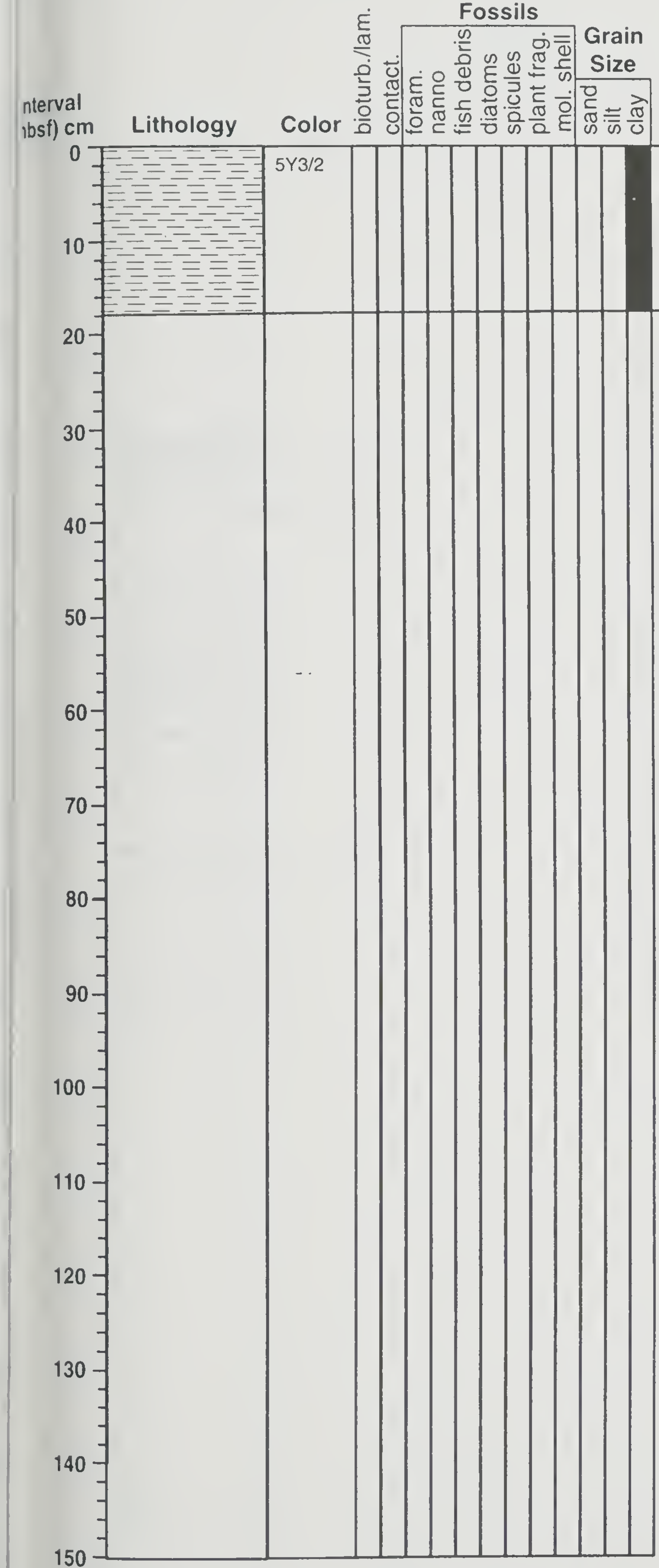
ss 10 cm (dark)
A: clay; organic matter
C: nannos; forams; pyrite; sponge spic.; fish debris
R: diatoms; rads

ss 80 cm (light)
A: clay; organic matter; nannos; forams
C: pyrite; sponge spic.; fish debris
R: rads
B: diatoms

150 cm = bottom of sect. 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: TC09 Sect.: 1 (150-168 cmbsf) Lat.: 23 13.11 N Long.: 111 04.75 W
Water Depth: 1261 m

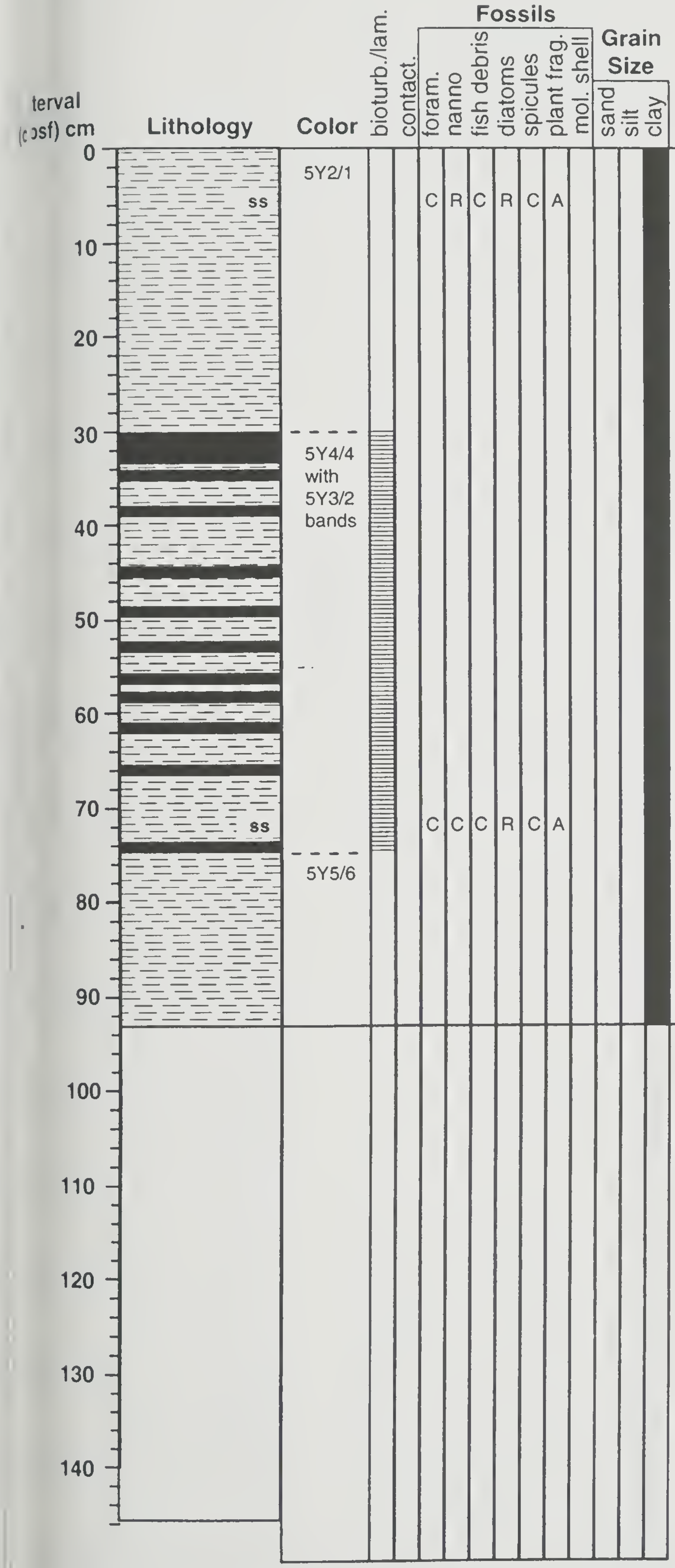


Remarks

CLAY (organic-rich; foram- nanno-bearing). mod. ol. brown (5
homogen. ol. gray (5Y3/2)

18 cm = bottom of sect. 1; 168 cmbsf = base of core TC09

XMZ01MV Core: PC10 Sect.: 10 (0-93 cmbsf) Lat.: 23 36.54 N Long.: 111 33.50 W
Water Depth: 433 m



Remarks

CLAY (organic-rich):
0-30 cm: homogen. ol. black (5Y2/1)
30-75 cm: mod. yel. brown (5Y4/4) w/cm-scale indistict band of darker material (ol. gray, 5Y3/2)
75-93 cm: homog. lt. olive brown (5Y5/6)

smear slides

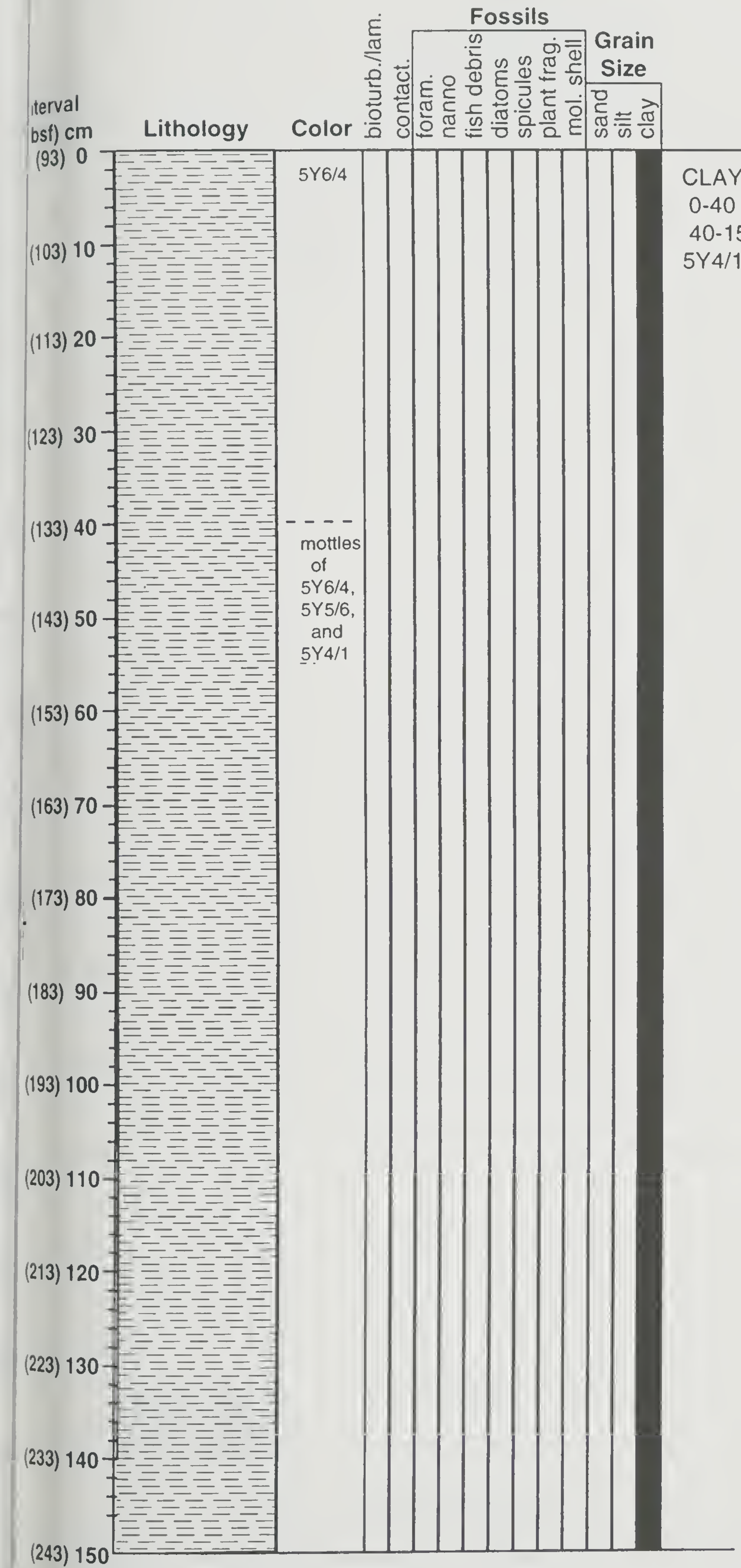
ss 6 cm (dark)
A: clay; organic matterr
C: fish debris; forams; pyrite; sponge spic.
R : rads; nannos; silicoflag.; diatoms

ss 72 cm (lighter)
A: clay; organic matter
C: fish debris; forams; nannos; pyrite; sponge spic.
R : rads; silicoflag.; diatoms

93 cm = bottom of section 10

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC10 Sect.: 9 (93-243 cmbsf) Lat.: 23 36.54 N Long.: 111 33.50 W
Water Depth: 433 m



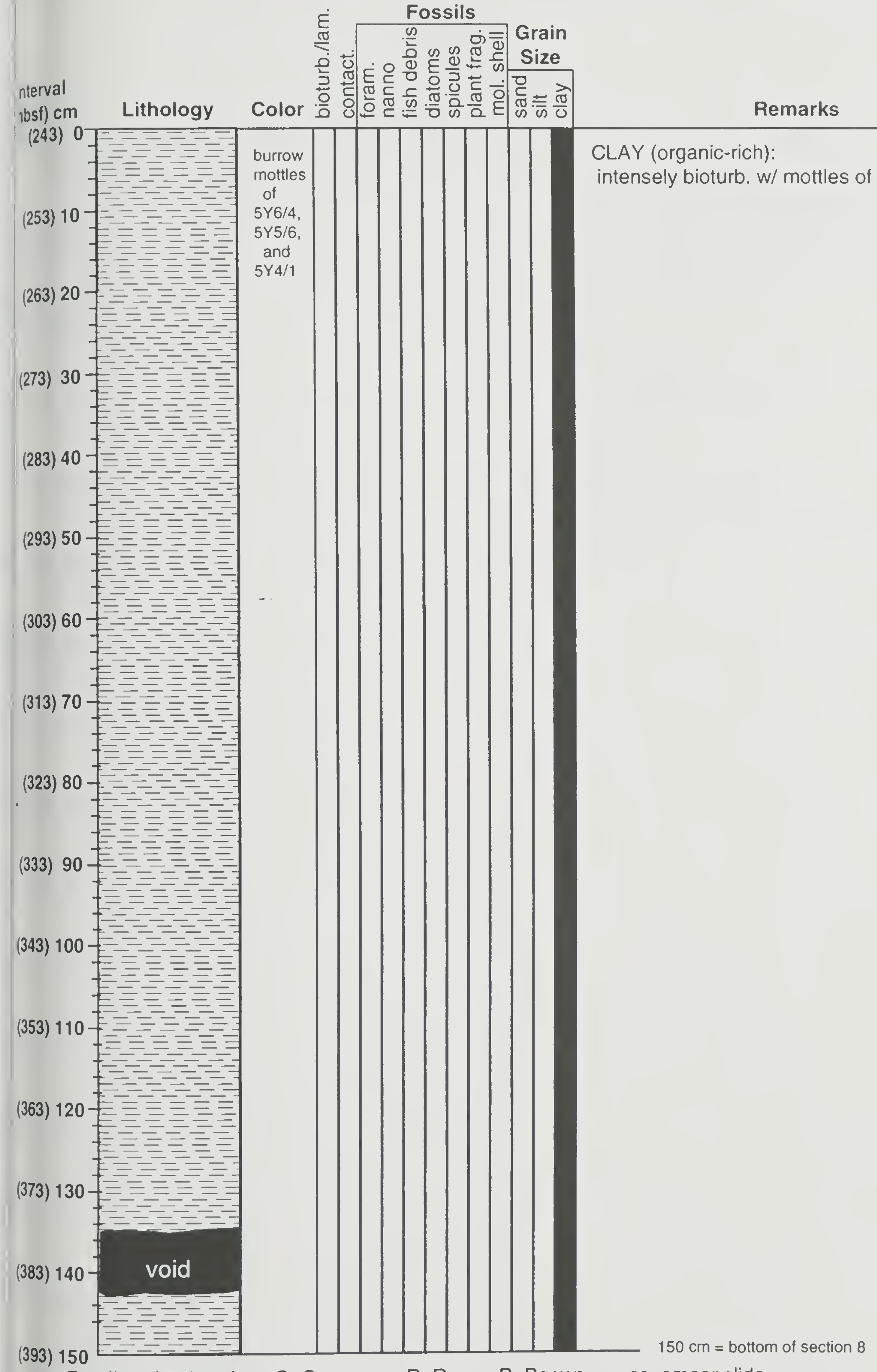
Remarks

CLAY (organic-rich):
0-40 cm: homogen. dusky yel. (56/4)
40-150 cm: intensely bioturb w/ mottles of5Y6/4, 5Y5/6, and 5Y4/1.

150 cm = bottom of section 9

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

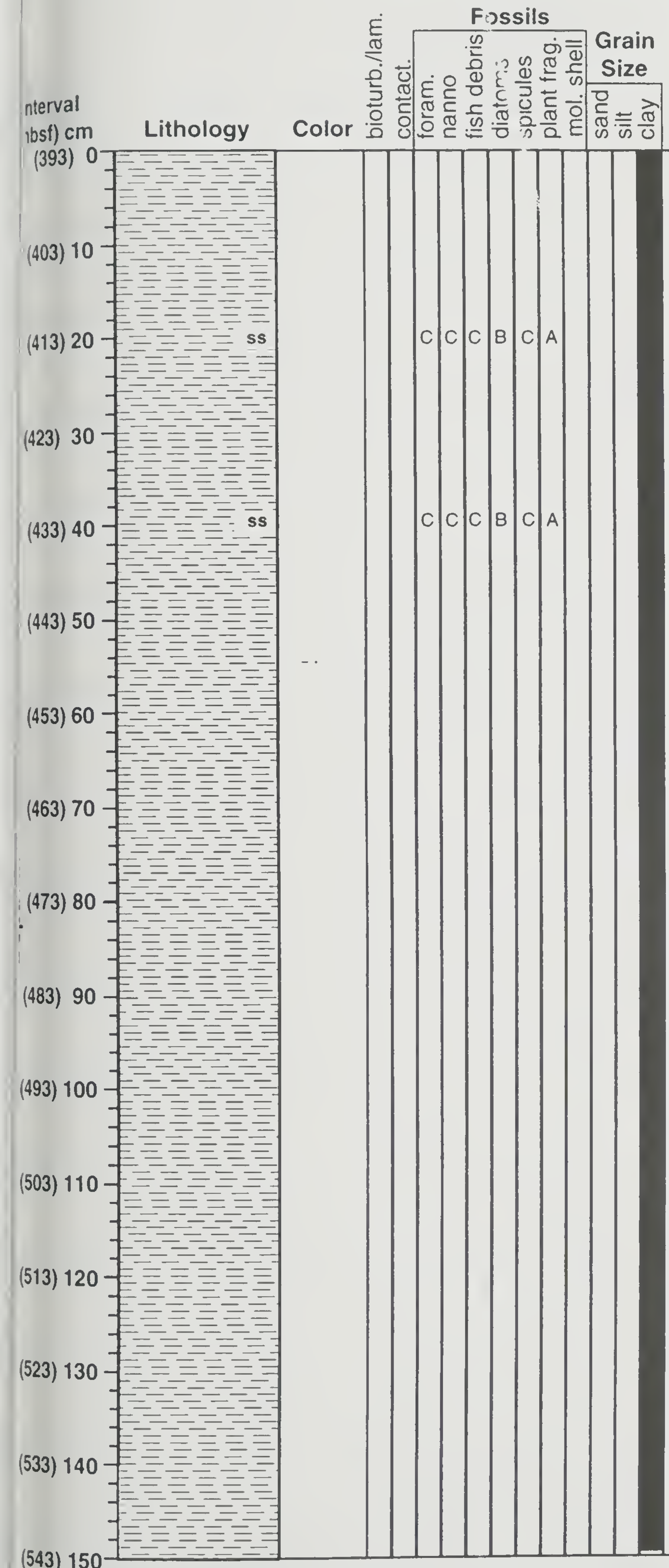
OXMZ01MV Core: PC10 Sect.: 8 (243-393 cmbsf) Lat.: 23 36.54 N Long.: 111 33.50 W
Water Depth: 433 m



CLAY (organic-rich):
intensely bioturb. w/ mottles of 5Y6/4, 5Y5/6, and 5Y4/1.

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC10 SECTION: 7 (393-543 mbsf) Lat.: 23 36.54 N Long.: 111 33.5 W
Water Depth: 433 m



Remarks

CLAY (organic-rich):
Intensely bioturbated; overall color is darker than in sects. 8 &
background is ca. olive gray (5Y3/2) to mod. yel. brown (5Y4/
Burrow mottles in background are both lighter
(e.g. dusky yel., 5Y6/4; lt. ol. gray, 5Y5/2), and darker
(e.g. ol. black, 5Y6/4).

smear slides

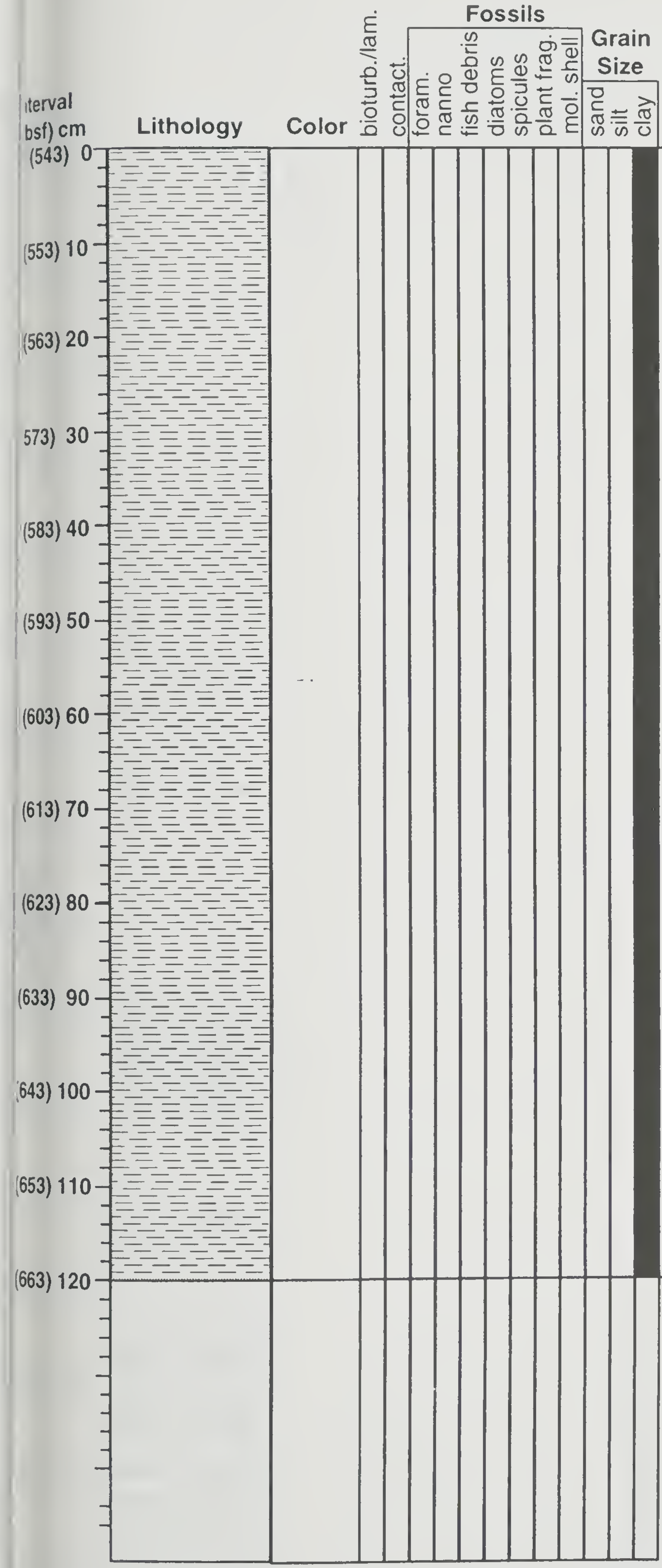
ss 20 cm (light burrow mottle)
A: clay; organic matter
C: fish debris; forams;nannos; pyrite; sponge spic.
R : rads
B: diatoms

ss 40 cm (dark matrix)
A: clay; organic matter
C: fish debris; forams;nannos; pyrite; sponge spic.
R : rads
B: diatoms

150 cm = bottom of sect. 7

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC10 Sect.: 6 (543-663 cmbsf) Lat.: 23 36.54 N Long.: 111 33.50 W
Water Depth: 433 m



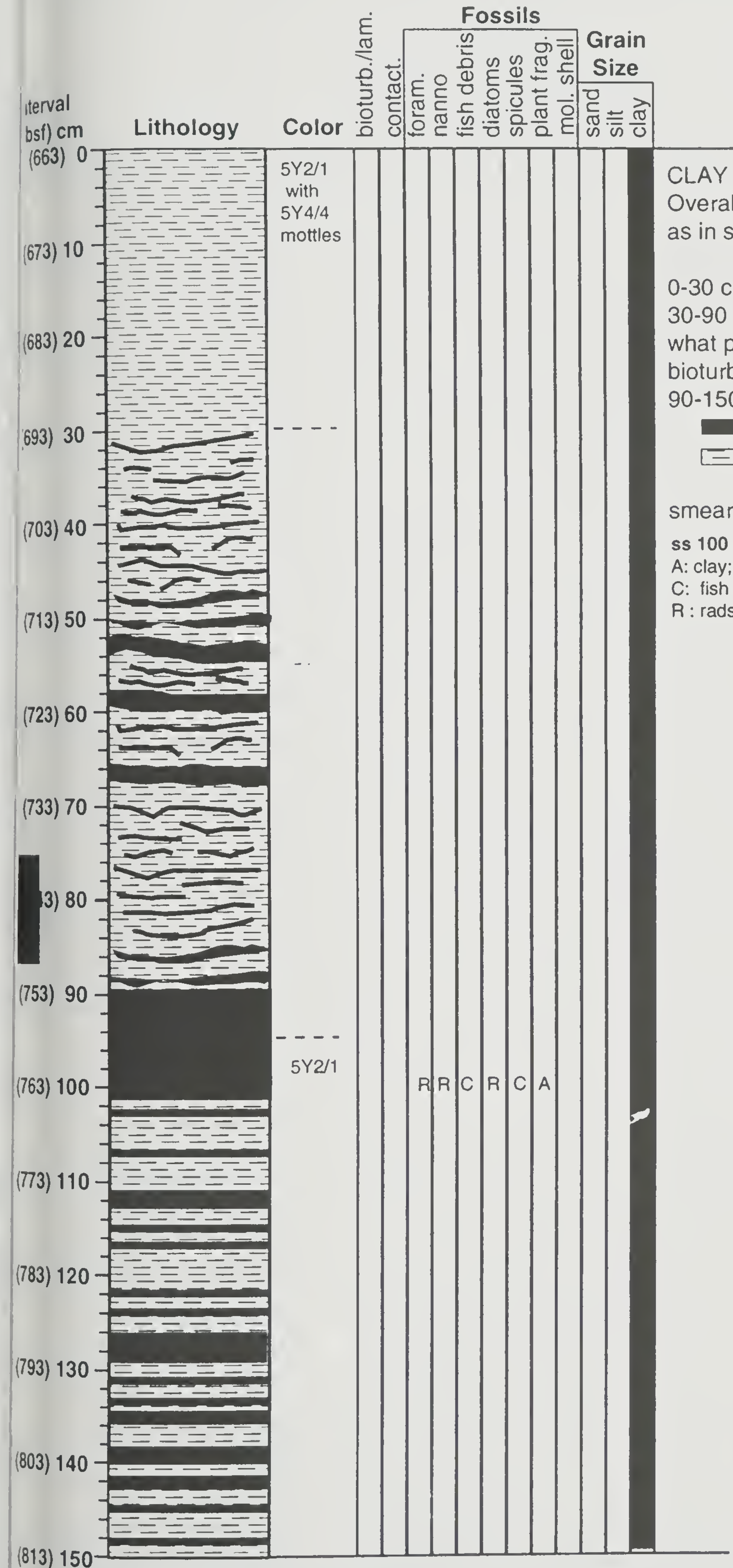
Remarks

CLAY (organic-rich):
intensely bioturb. with overall background dark as in sect. 7, and lighter burrow mottles, predominantly dusky yellow (5Y6/

120 cm = bottom of section 6

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC10 SECTION: 5 (663-813 cmbsf) Lat.: 23 36.54 N Long.: 111 33.5 W
Water Depth: 433 m



Remarks

CLAY (organic-rich):
Overall background dark (predom. ol. black, 5Y2/1) as in sects. 7 and 6, with lighter burrow mottles.

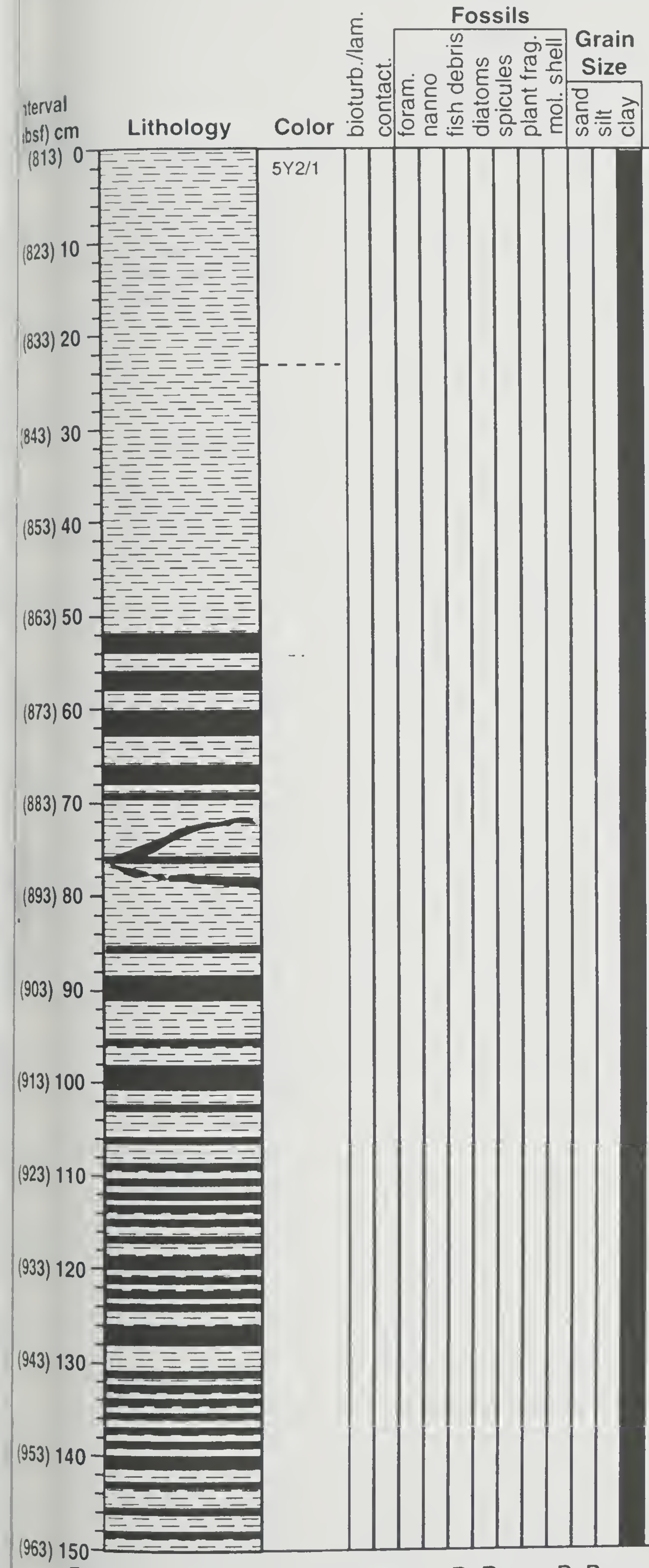
0-30 cm: highly bioturbated
30-90 cm: somewhat bioturbated, but with some zones of what probably are primary bands only slightly affected by bioturbation (see sect. 4)
90-150 cm: cm-scale banding of
■ dark: 5Y2/1
▭ light: predom. mod. yel. brown (5Y4/4)

smear slides

ss 100 cm (dark matrix)
A: clay; organic matter
C: fish debris;; pyrite; sponge spic.
R : rads; nannos; diatoms; forams; carbonate rhombs

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC10 SECTION: 4 (813-963 cmbsf) Lat.: 23 36.54 N Long.: 111 33.5 W
Water Depth: 433 m



Remarks

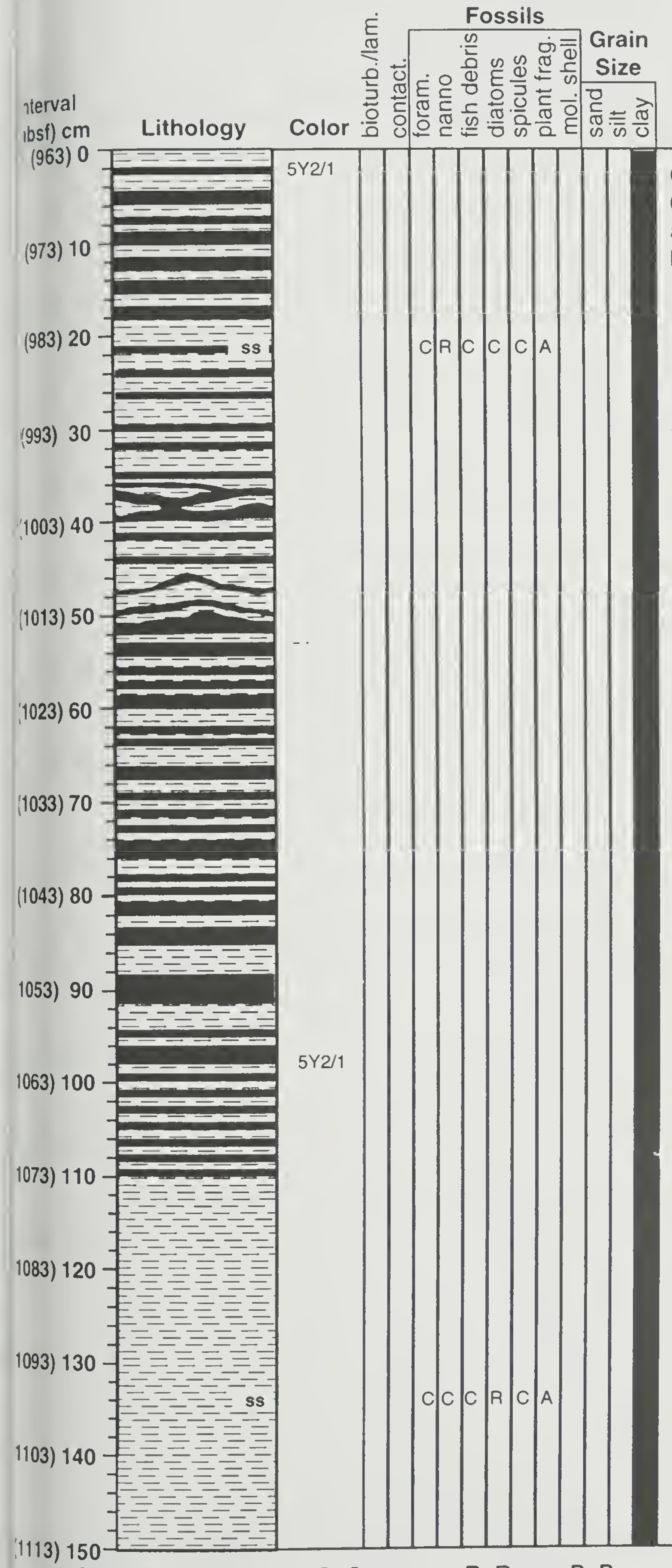
CLAY (organic-rich):

0-23 cm: homogeneous ol. black (5Y2/1)
23-53 cm: somewhat bioturbated, but with possible diffuse cm-scale bands
53-150 cm: basic stratigraphy is cm-scale interlayering of light and dark bands. there are some slight variations in color, but the basic colors are
dark: predom. ol. black (5Y2/1) ■
light: predom. mod. ol. brown (5Y4/4) ▤

150 cm = bottom of sect. 4

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC10 SECTION: 3 (963-1113 cmbsf) Lat.: 23 36.54 N Long.: 111 33.5 W
Water Depth: 433 m



Remarks

CLAY (organic-rich):
0-110 cm: basic stratigraphy is cm-scale interlayering of light and dark bands. There are some slight variations in color, but the basic colors are
dark: predom. ol. black (5Y2/1) ■
light: predom. mod. ol. brown (5Y4/4) ▤

110-150 cm: homogeneous ol. gray 5Y3/2

smear slides

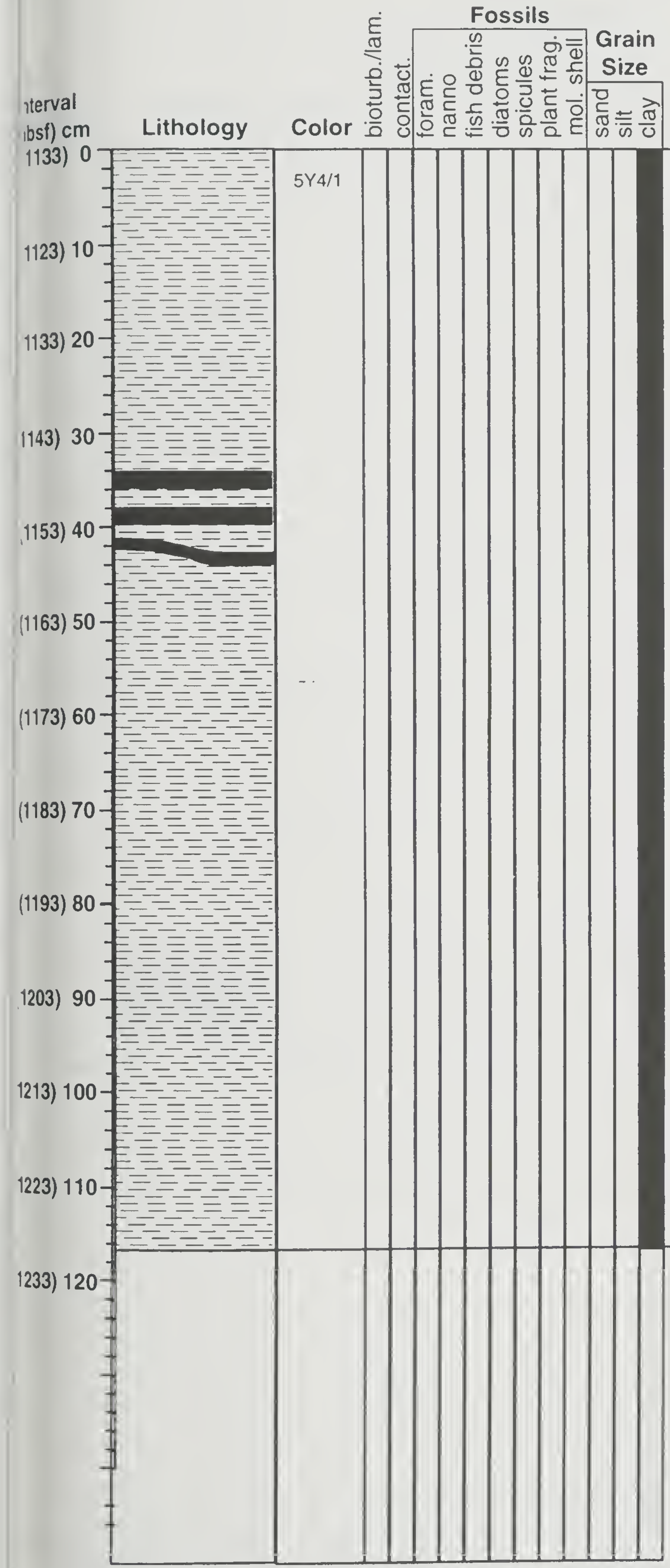
ss 22 cm (dark)
A: clay; organic matter
C: fish debris;; pyrite; sponge spic.; forams; diatoms (*Azpeitia*; girdle bands) lithic grains
R : rads; nannos;

ss 135 cm (light)
A: clay; organic matter
C: forams; fish debris; lithic grains; pyrite; sponge spic.
R : rads; nannos; diatoms; silicoflag.

150 cm = bottom of sect. 4

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC10 Sect.: 2 (1113-1230 cmbsf) Lat.: 23 36.54 N Long.: 111 33.50 W
Water Depth: 433 m



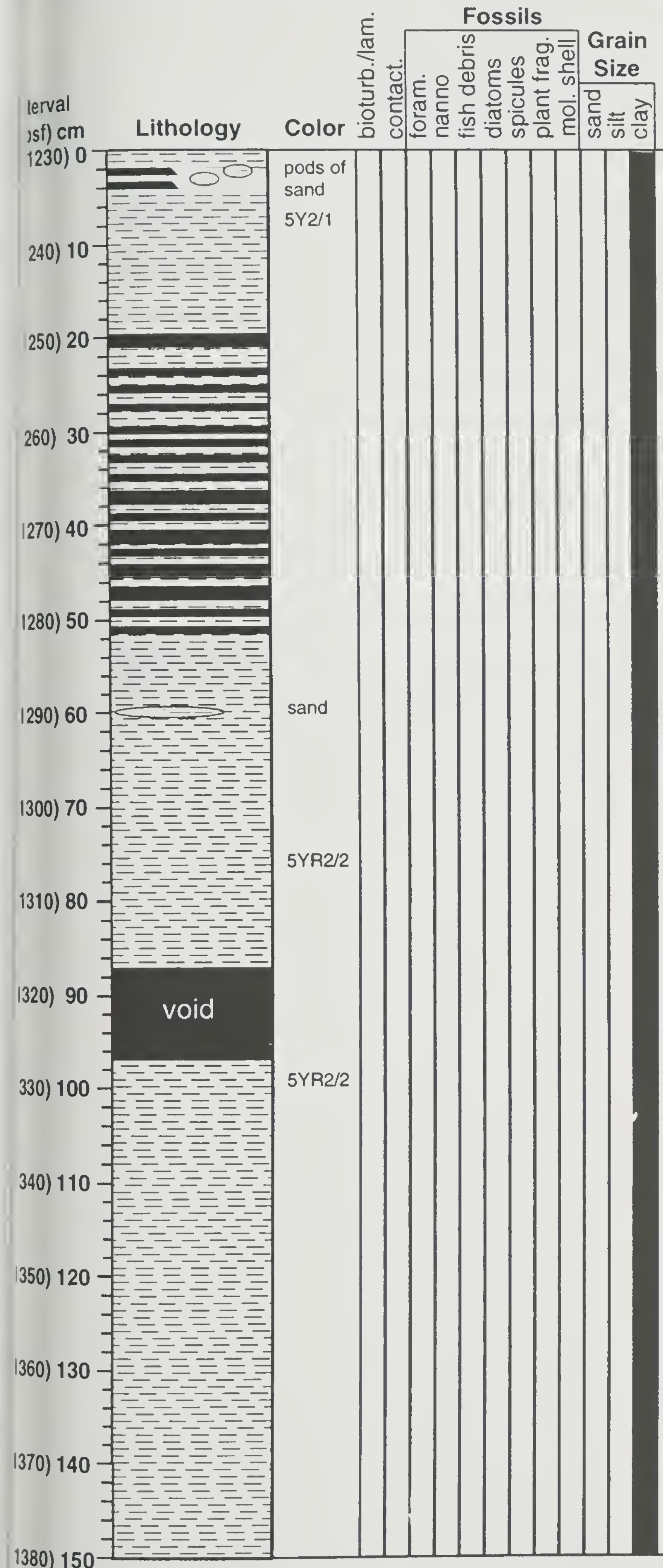
Remarks

CLAY (organic-rich):
mostly homogeneous mod. ol. brown (5Y4/1) with several diffuse darker bands (ol. black, 5Y2/1)

117 cm = bottom of section 2 (1230 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC10 SECTION: 1 (1230-1380 cmbsf) Lat.: 23 36.54 N Long.: 111 33.5 W
Water Depth: 433 m



Remarks

CLAY (organic-rich):

0-50 cm: basic stratigraphy is cm-scale interlayering of light and dark bands. there are some slight variations in color, but the basic colors are
dark: predom. ol. black (5Y2/1) ■
light: predom. mod. ol. brown (5Y4/4) ▤

4-20 cm, and 52-75 cm, contain intervals with diffuse cm-scale bands

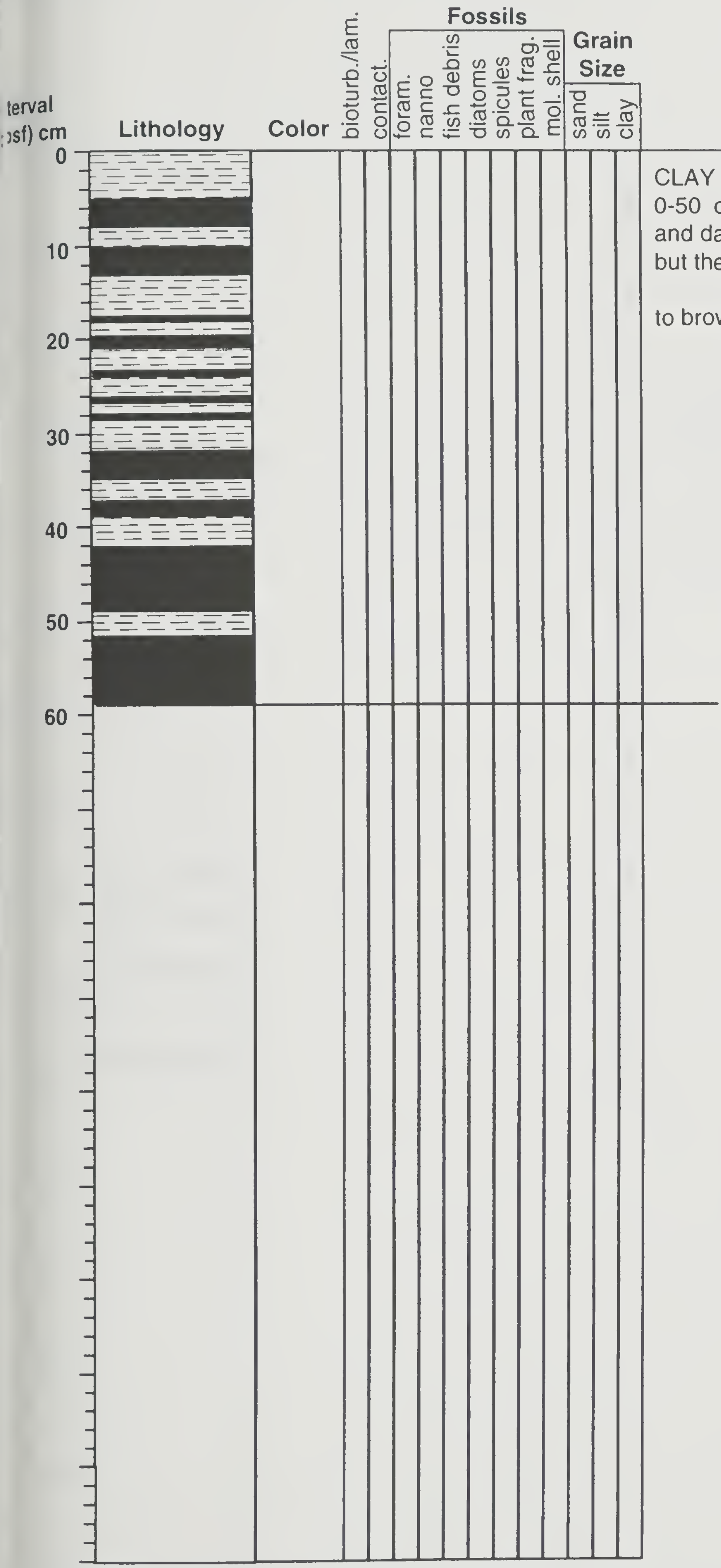
75-150 cm: homogeneous dusky brown (5YR2/2)

150 cm = bottom of sect. 1; 1380 cmbsf = base of core PC10

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: TC10 SECTION: 1 (0-59 cmbsf) Lat.: 23 36.54 N Long.: 111 33.5 W

Water Depth: 433 m



Remarks

CLAY (organic-rich):

0-50 cm: basic stratigraphy is cm-scale interlayering of light and dark bands. There are some slight variations in color, but the basic colors are

dark: predom. ol. black (5Y2/1) ■

to brownish black (5YR2/1)

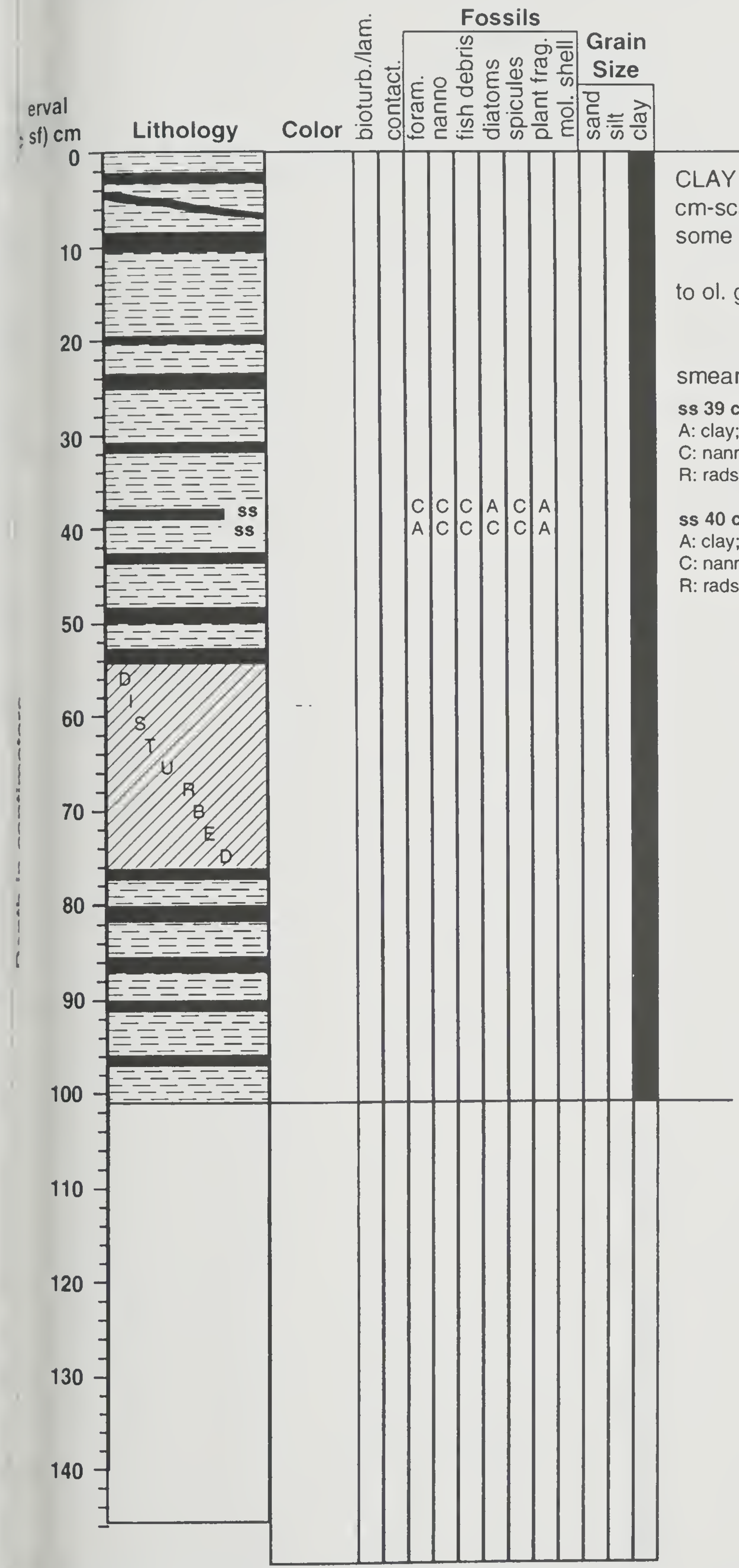
light: predom. dusky yel. brown (10YR2/2) ▤

59 cm = bottom of sect. 1 and base of core TC10

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC11 Sect.: 10 (0-101 cmbsf) Lat.: 23 38.0 N Long.: 111 48.0 W
Water Depth: 712 m



Remarks

CLAY (organic-rich; diatom-bearing): basic stratigraphy is cm-scale interlayering of light and dark bands. There are some slight variations in color, but the basic colors are:
light: mod. ol. brown (5Y4/4) ▤
to ol. gray (5Y3/2)
dark: ol. black (5Y3/2) ■

smear slides

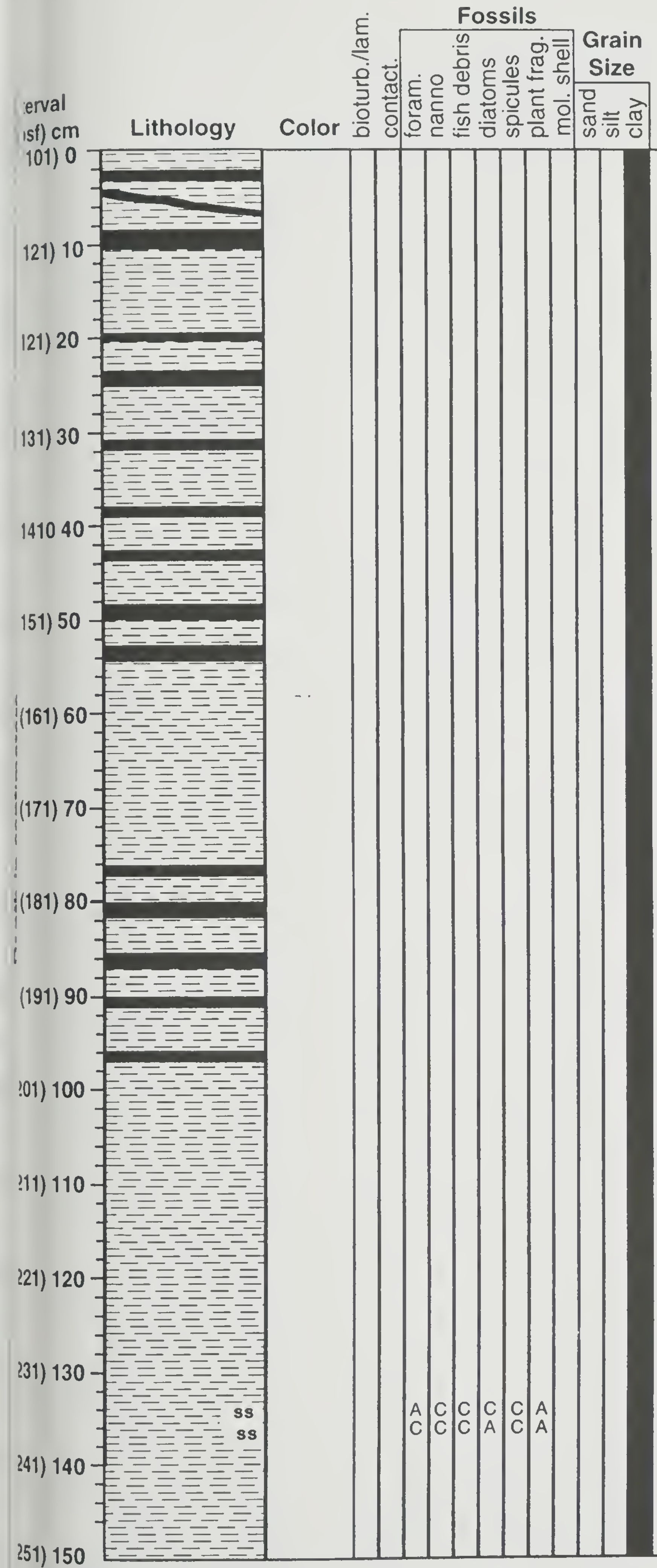
ss 39 cm (dark)
A: clay; organic matter; diatoms
C: nannos; forams; pyrite; fish debris; sponge spic.
R: rads

ss 40 cm (light)
A: clay; organic matter; forams
C: nannos; diatoms; sponge spic; fish debris
R: rads

101 cm = bottom of section 10

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC11 Sect.: 9 (101-254 cmbsf) Lat.: 23 38.0 N Long.: 111 48.0 W
Water Depth: 712 m



Remarks

CLAY (organic-rich; diatom-, nanno-, and foram-bearing): Particularly dark (ol. black, 5Y2/1), sharp, cm-scale bands in a background of ligher material (mod. ol. brown (5Y4/4).

light ▤ dark ■

smear slides

ss 134 cm (light)
A: clay; organic matter; nannos
C: forams; diatoms; pyrite; fish debris; sponge spic.
R: rads; lithic frags.

ss 135 cm (dark)
A: clay; organic matter
C: nannos; forams; diatoms (*Chaetoceros* resting spores; *Azpleitia; Nitzschia; Coscinodiscus*); sponge spic; fish debris; lithic frags.
R: rads; silicoflag.

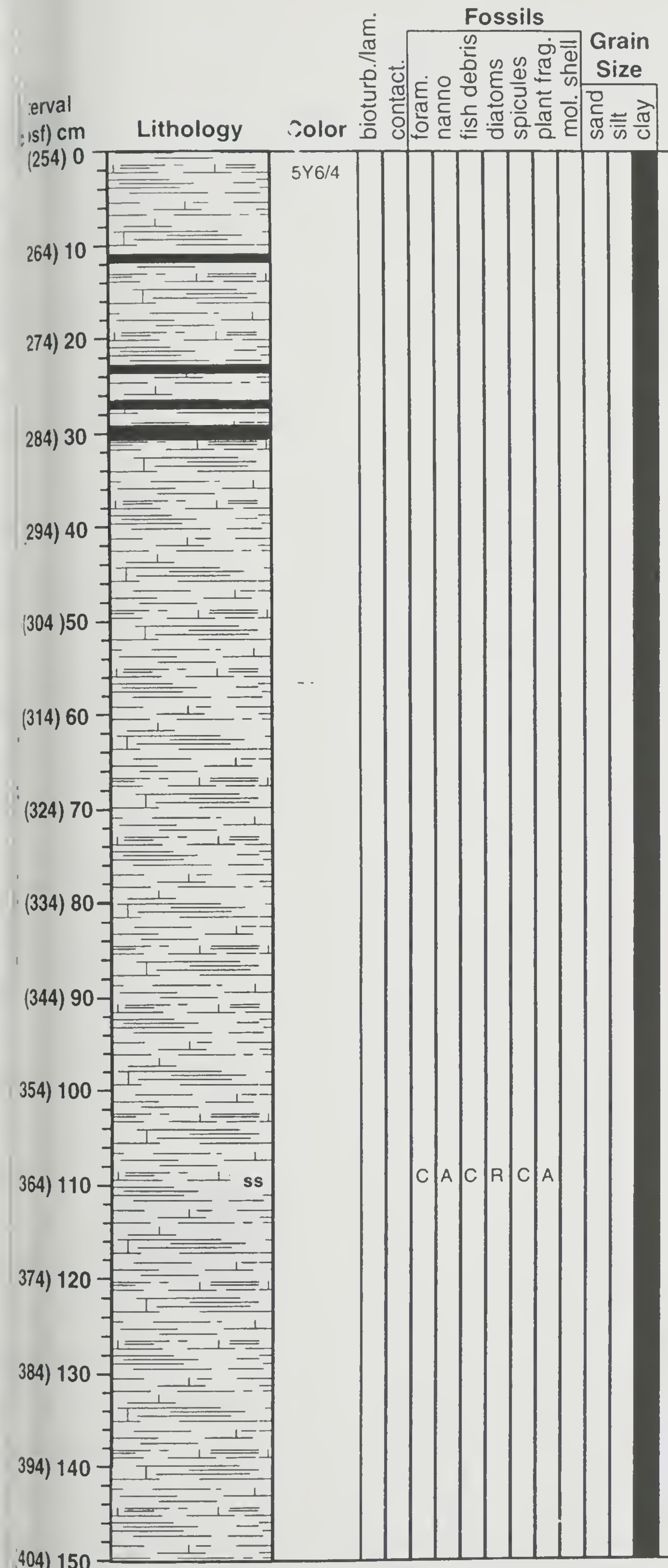
between S. 8 and S 9

3 cm = add to bottom of section 9

150 cm = bottom of section 9 (251 cmbsf + 3cm = 254 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC11 SECTION: 8 (254-407 cmbsf) Lat.: 23 28 N Long.:111 48 W
Water Depth: 712 m



Remarks

CLAY (organic-rich; nanno-, and foram-bearing): predom. homogeneous dusky yel. (5Y5/4); extensive horizonral gas (?) cracks, and slightly darker (5Y5/2) bands (lt. ol. gray, 5Y5/2) in top 30 cm as indicated ▬

smear slides

ss 110 cm

A: clay; organic matter; nannos

C: forams; pyrite; fish debris; sponge spic.; lithic frags.

R: rads; diatoms;; silicoflag.

between S. 7 and S. 8

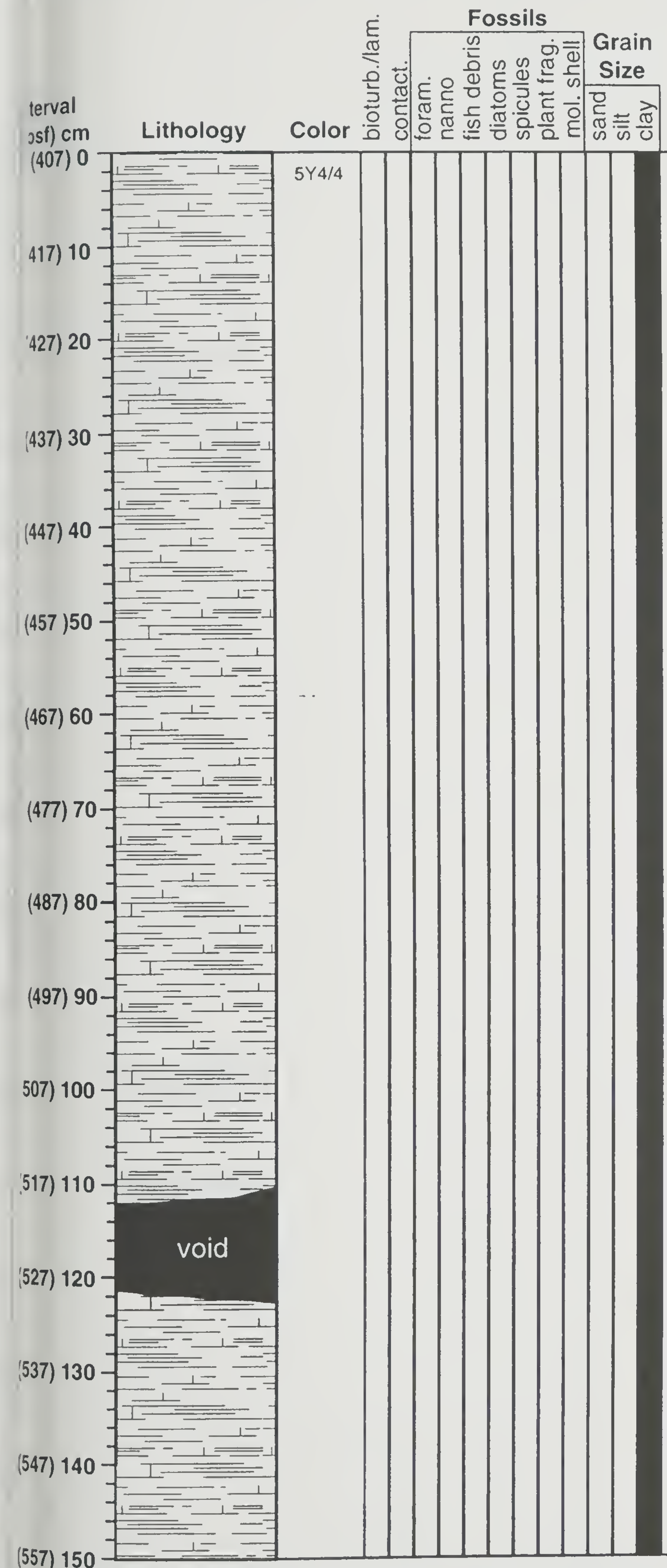
3 cm = add to bottom of section 8

150 cm = bottom of section 8 (404 cmbsf + 3cm = 407 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

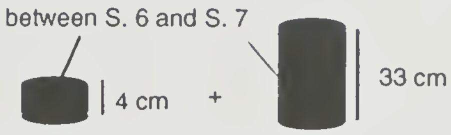
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC11 SECTION: 7 (407-594 cmbsf) Lat.: 23 28 N Long.: 111 48 W
Water Depth: 712 m



Remarks

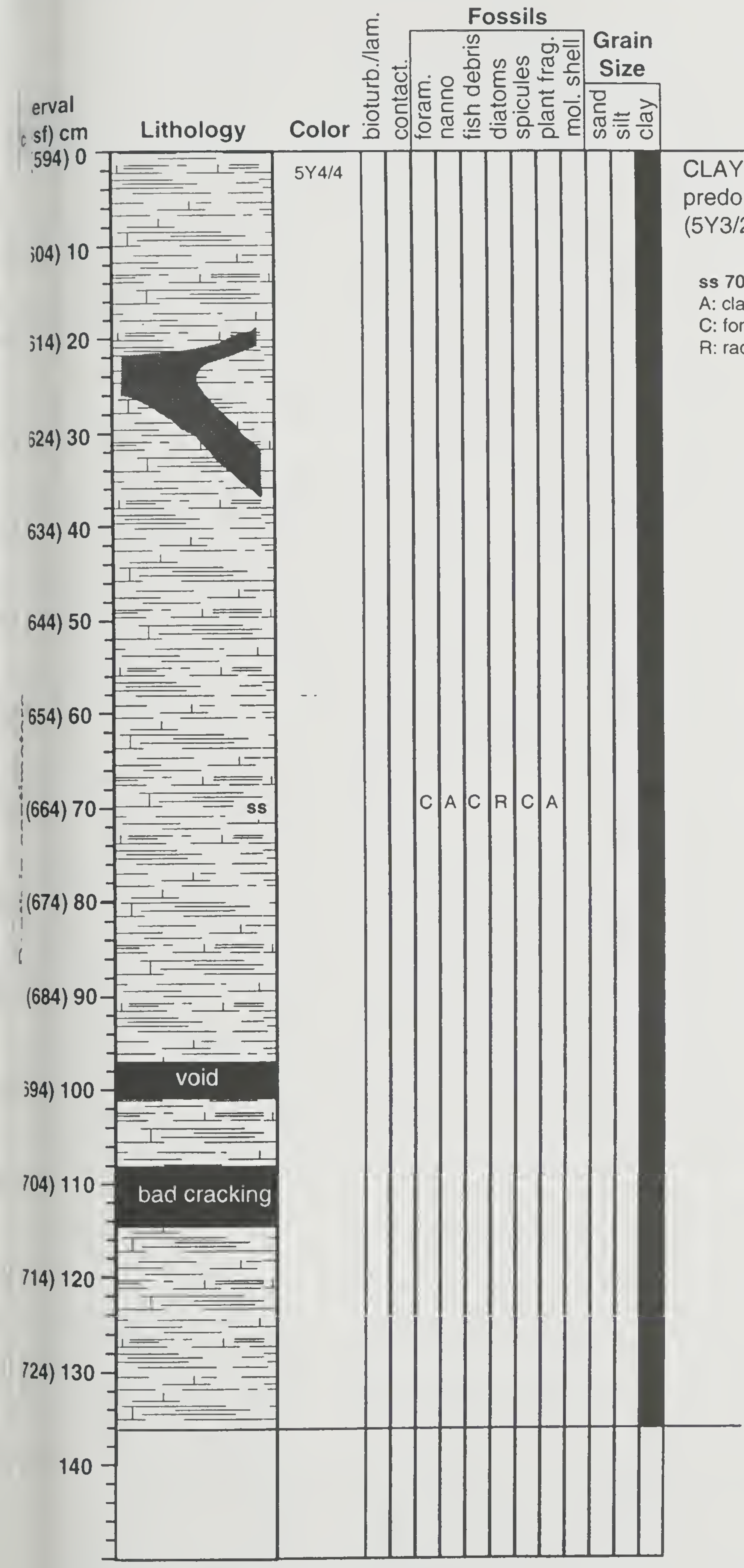
CLAY (organic-rich; nanno-, and foram-bearing): predom. homogeneous mod. ol. brown (5Y4/4); extensive horizonral gas (?) cracks throughout



150 cm = bottom of section 7
557 cmbsf + 4cm + 33 cm= 594 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC11 SECTION: 6 (594-730 cmbsf) Lat.: 23 28 N Long.:111 48 W
Water Depth: 712 m



Remarks

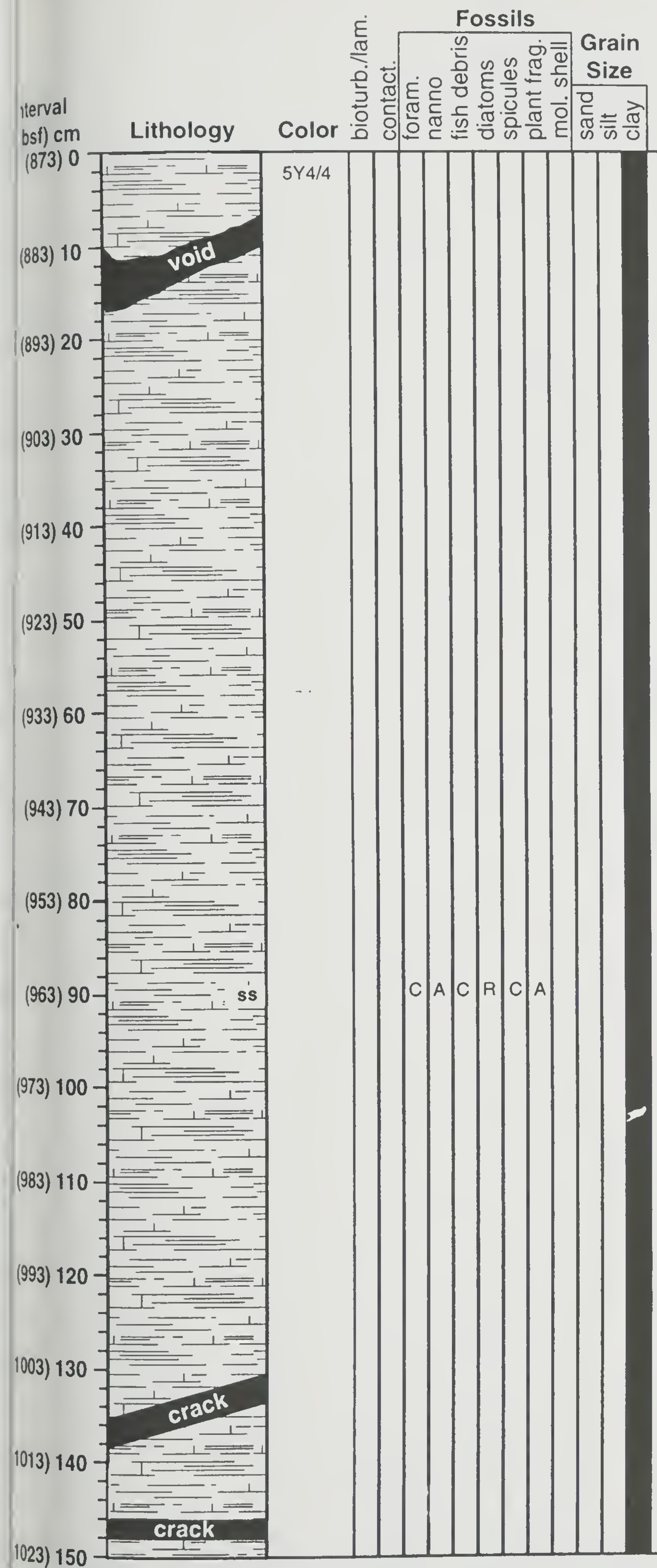
CLAY (organic-rich; nanno-, and foram-bearing): predom. homogeneous mod. ol. brown (5Y4/4) with ol. gray (5Y3/2) large burrow mottle

ss 70 cm
A: clay; organic matter; nannos
C: forams; pyrite; fish debris; sponge spic.; lithic frags.
R: rads; diatoms (cyclotella; fragments); authigenic carbonate rhombs

136 cm = bottom of section 6

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC11 SECTION: 4 (873-1023 cmbsf) Lat.: 23 28 N Long.: 111 48 W
Water Depth: 712 m



Remarks

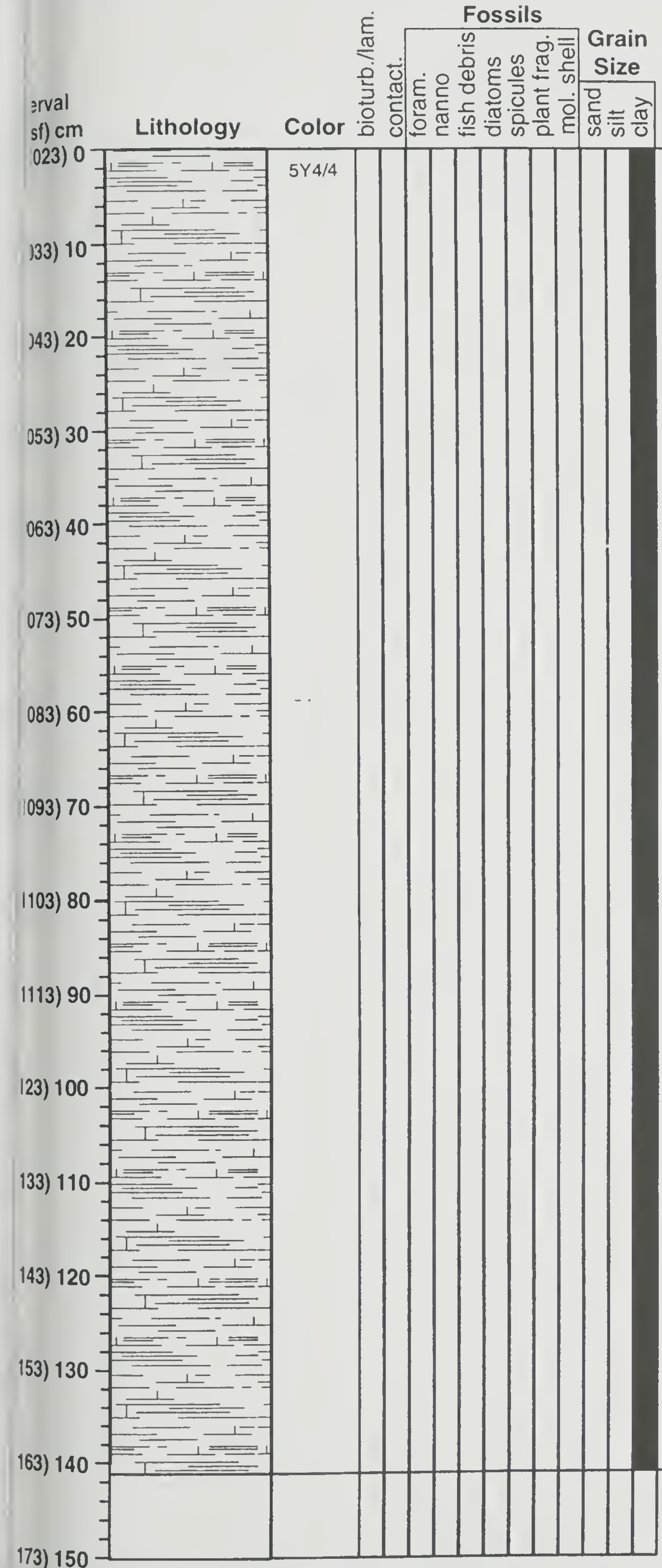
CLAY (organic-rich; nanno-, and foram-bearing):
predom. homogeneous mod. ol. brown (5Y4/4)
throughout w/ ol. gray (5Y5/2) boundaries to several burrows

smear slides

ss 90 cm
A: clay; organic matter; nannos
C: forams; pyrite; fish debris; sponge spic.
R: rads; diatoms

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC11 SECTION: 3 (1023-1186 cmbsf) Lat.: 23 28 N Long.: 111 48 W
Water Depth: 712 m



Remarks

CLAY (organic-rich; nanno-, and foram-bearing): predom. homogeneous mod. ol. brown (5Y4/4) throughout w/ ol. gray (5Y5/2) burrow mottles

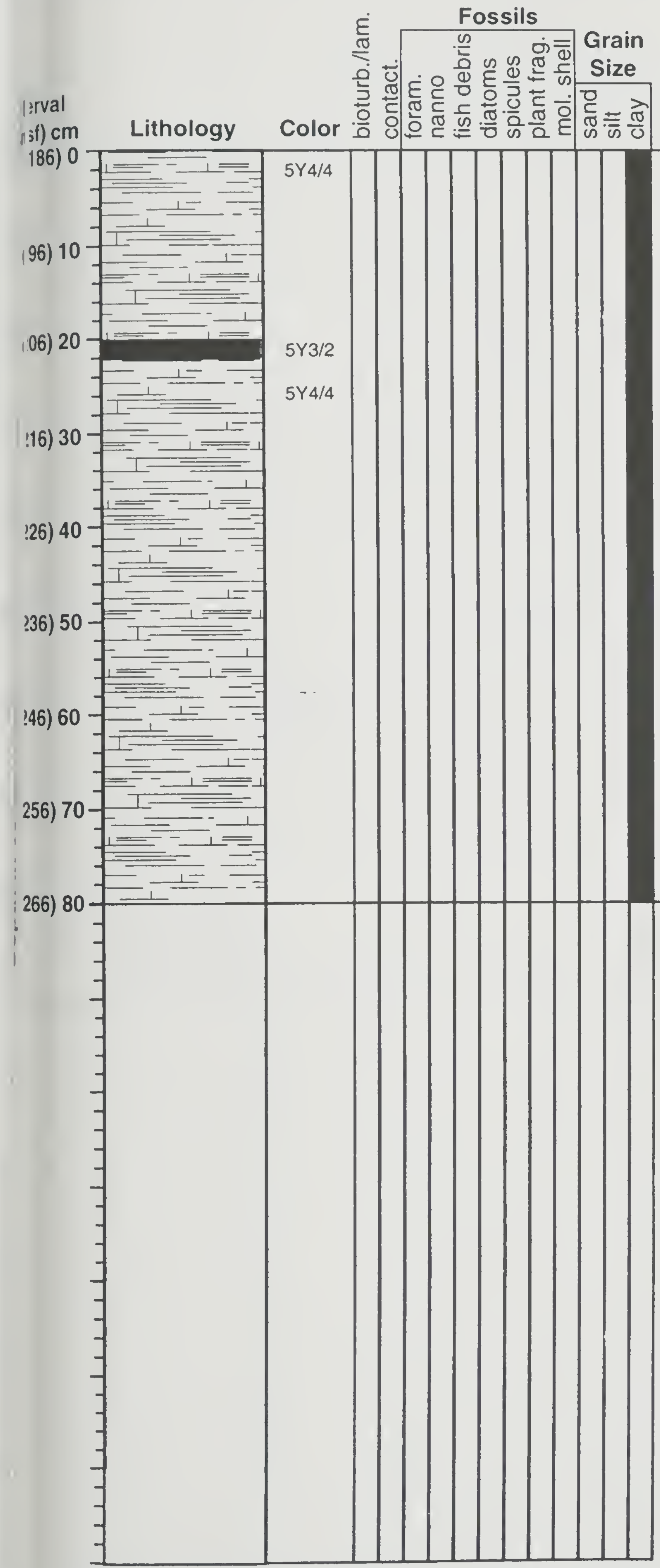
between S. 2 and S. 3
add to bottom of S. 3

141 cm = bottom of section 3
1164 cmbsf + 22 cm= 1186 cmbsf)

141 cm = bottom of section 3

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

MZ01MV Core: PC11 SECTION: 2 (1186-1266 cmbsf) Lat.: 23 28 N Long.: 111 48 W
Water Depth: 712 m



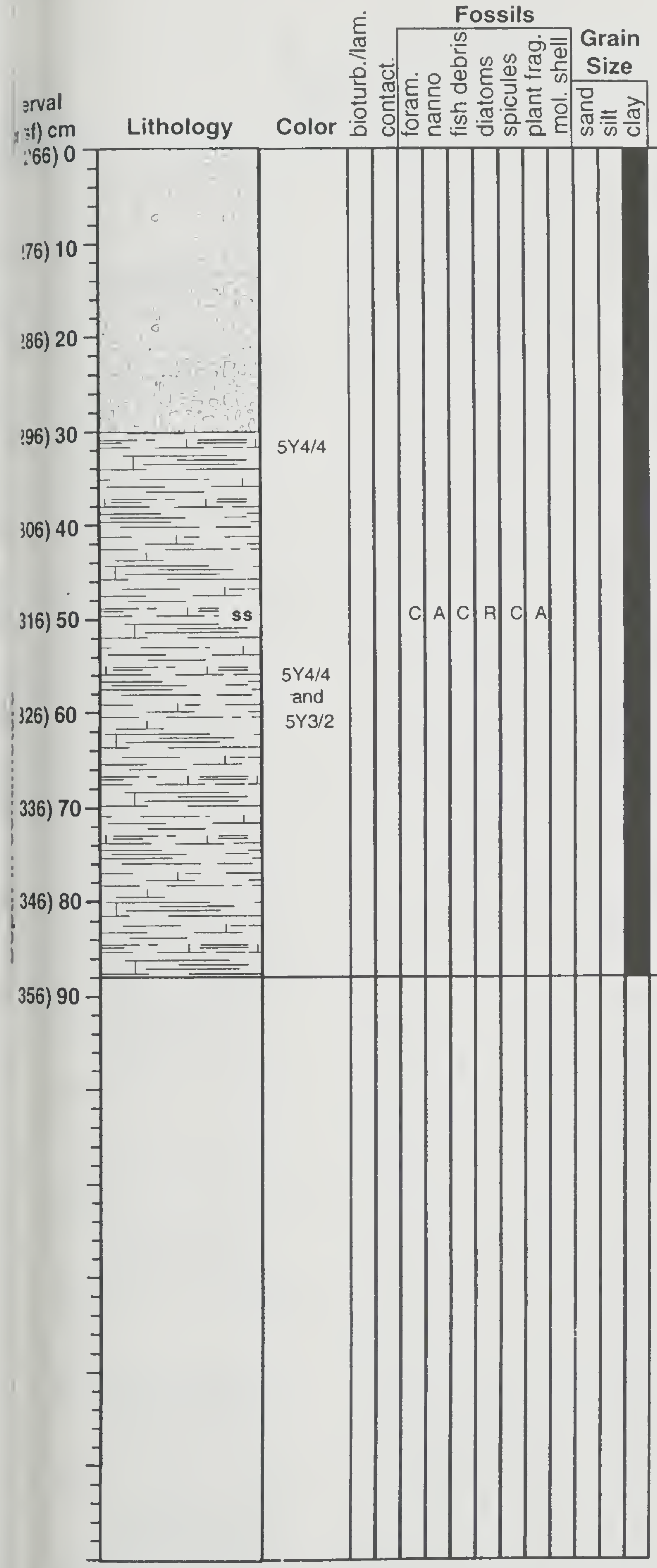
Remarks

CLAY (organic-rich; nanno-, and foram-bearing): predom. homogeneous mod. ol. brown (5Y4/4) throughout w/ ol. gray (5Y5/2) burrow mottles and one diffuse dark band (ol. gray, 5Y3/2)

80 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC11 SECTION: 1 (1266-1354 cmbsf) Lat.: 23 28 N Long.: 111 48 W
Water Depth: 712 m



Remarks

CLAY (organic-rich; nanno-, and foram-bearing):
0-30 cm: disturbed sediment (by gas?)
30-54 cm: homogeneous mod. ol. brown (5Y4/4)
54-88 cm: 5Y4/4 mottled with ol. gray (5Y3/2)

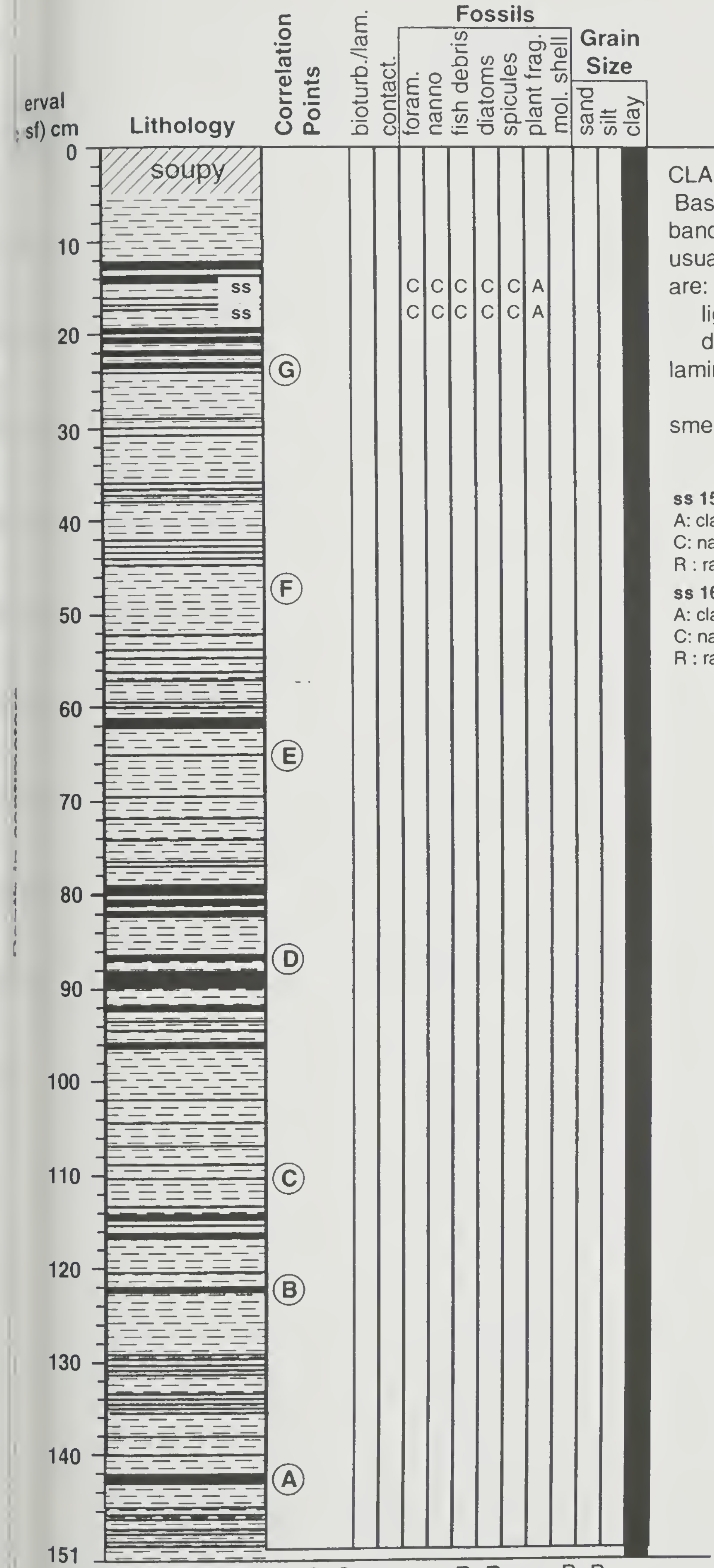
smear slides

ss 50 cm
A: clay; organic matter; nannos
C: forams; pyrite; fish debris; sponge spic; lithic frags..
R: rads; diatoms (a few centric frags, girdle bands)

88 cm = bottom of section 1 1354 cmbsf = base of core PC11

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC12 Sect.: 10 (0-151 cmbsf) Lat.: 25 12.03 N Long.: 112 43.0 W
Water Depth: 542 m



Remarks

CLAY (organic-rich):
Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:
light: (background) dusky yel. brown (5YR2/2) ▤
dark: brownish black (5YR2/1) bands of multi-laminae ■ and individual laminae —

smear slides

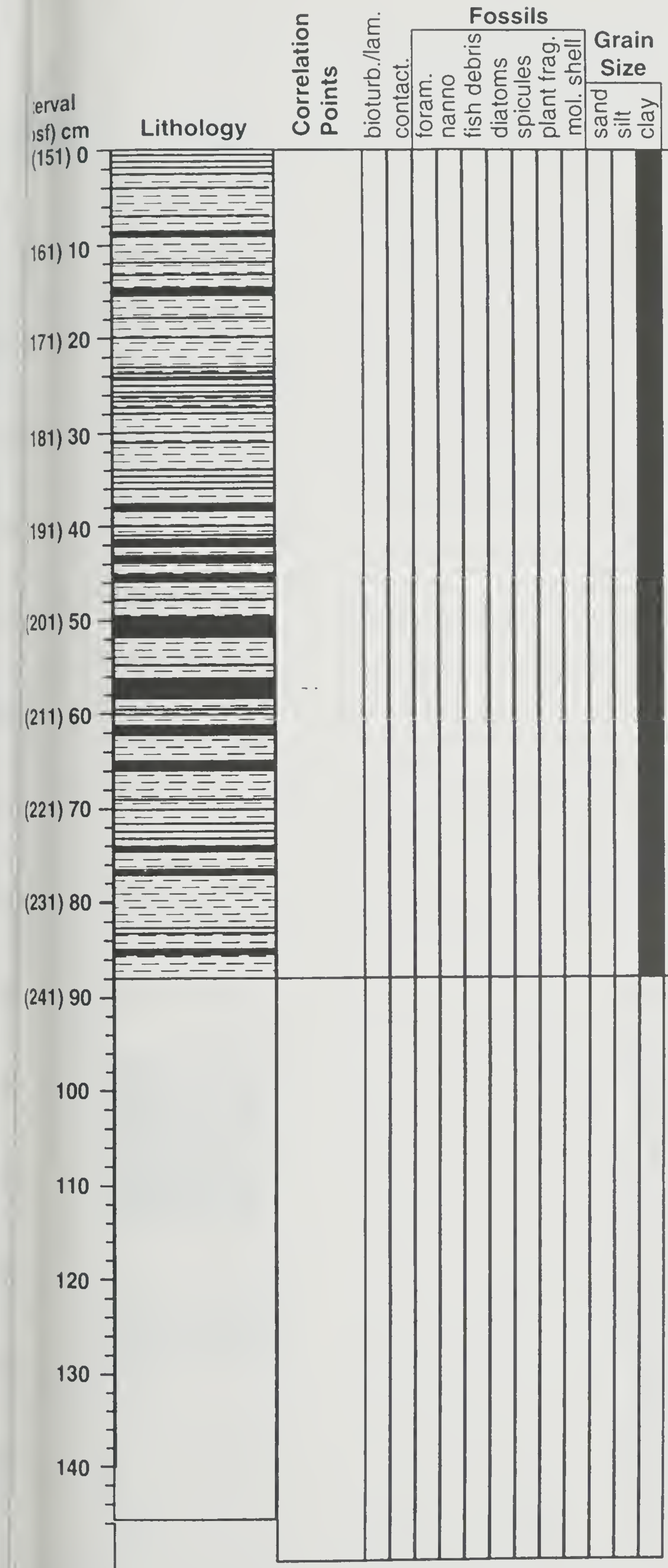
ss 15 cm (dark)
A: clay; organic matter
C: nannos; forams; pyrite; fish debris; sponge spic.; diatoms
R : rads

ss 16 cm (light)
A: clay;
C: nannos; forams; organic matter; pyrite; fish debris; sponge spic.; diatoms
R : rads

151 cm = bottom of section 10

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottledled

XMZ01MV Core: PC12 Sect.: 9 (151-239 cmbsf) Lat.: 25 12.03 N Long.: 112 43.0 W
Water Depth: 542 m



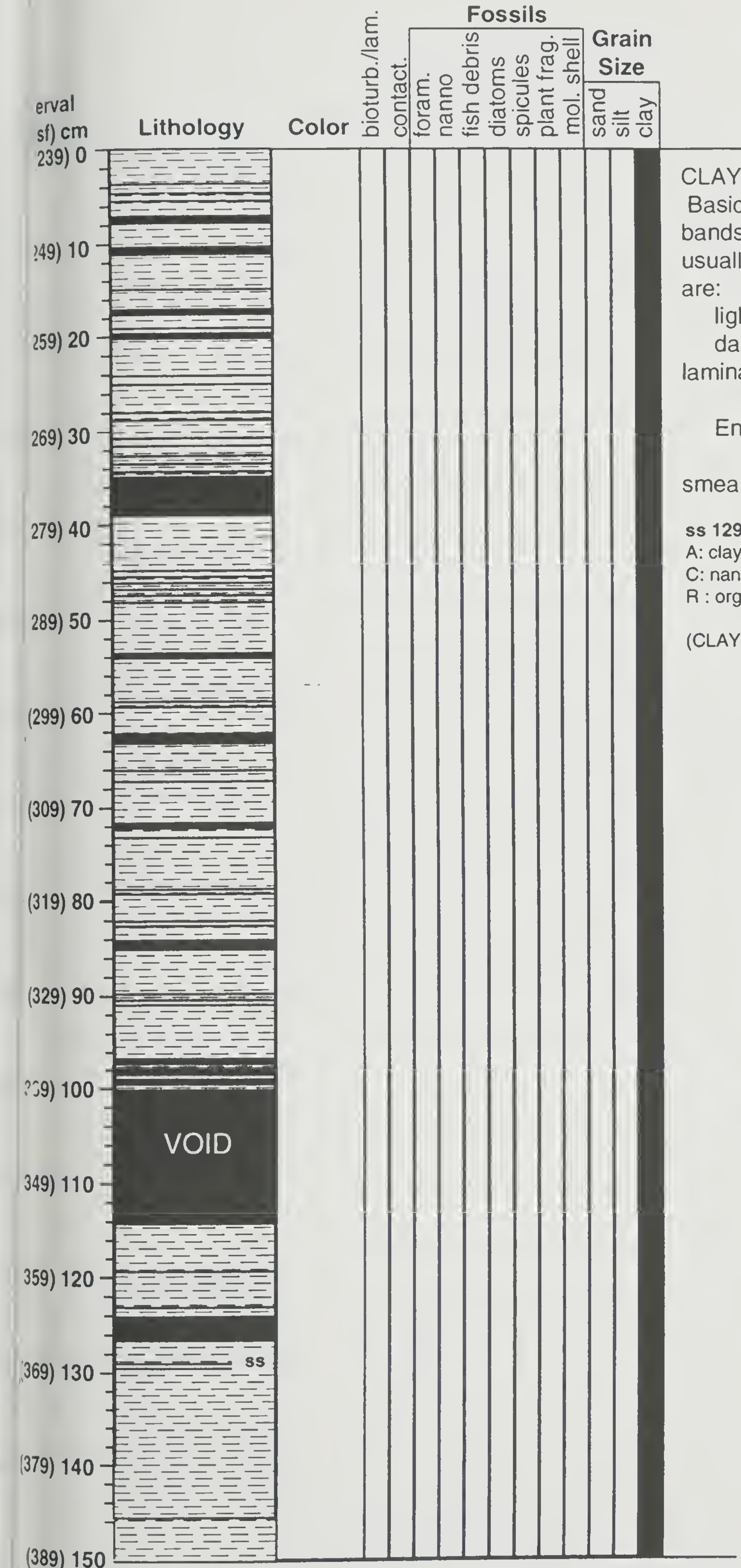
Remarks

CLAY (organic-rich):
Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:
light: (background) dusky yel. brown (5YR2/2) ▤
dark: brownish black (5YR2/1) bands of multi-laminae ■ and individual laminae —

88 cm = bottom of section 9

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC12 Sect.: 8 (239-389 cmbsf) Lat.: 25 12.03 N Long.: 112 43.0 W
Water Depth: 542 m



Remarks

CLAY (organic-rich):
Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:
light: (background) dusky yel. brown (5YR2/2) ▤
dark: brownish black (5YR2/1) bands of multi-laminae ■ and individual laminae —

Entire section contains extensive horizontal gas cracks.

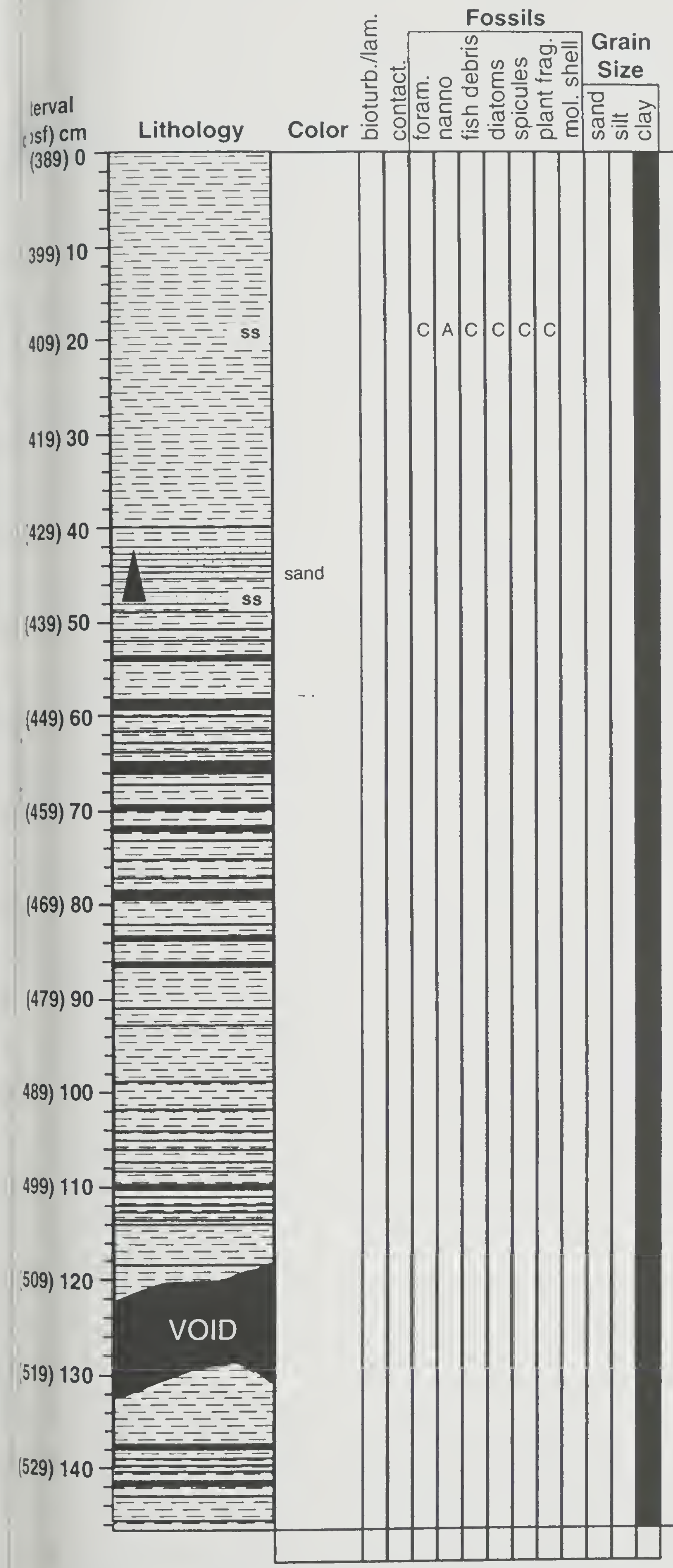
smear slides

ss 129 cm (olive gray layer)
A: clay; organic matter
C: nannos
R : organic debris; pyrite; sponge spic.; diatoms

(CLAY, nannofossil-bearing)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC12 Sect.: 7 (389-605 cmbsf) Lat.: 25 12.03 N Long.: 112 43.0 W
Water Depth: 542 m



CLAY (organic-rich):
0-40 cm: Homogenous, dark yel. brown (10YR4/2)
40-147 cm: Basic stratigraphy is cm-scale interlayering of light and dark bands and laminae. The basic colors are:
light: (background) dusky yel. brown (5YR2/2) ▤
dark: brownish black (5YR2/1) bands of multi-laminae ■ and individual laminae —

☐ = sand layers (lt. ol. grY (5Y5/2)

Entire section contains extensive horizontal gas cracks.

smear slides

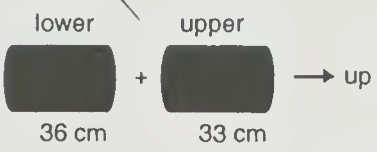
ss 20 cm (homogenous)
A: clay; nannos
C: forams; pyrite; organic matter; diatoms; sponge spic.
R : lithic grains

(nannofossil CLAY)

ss 48 cm (SAND)
A: clay; forams; shell frags.
C: diatoms; pyrite; lithic grains

(foraminiferal SAND)

between S. 6 and S. 7
add to bottom of S. 7

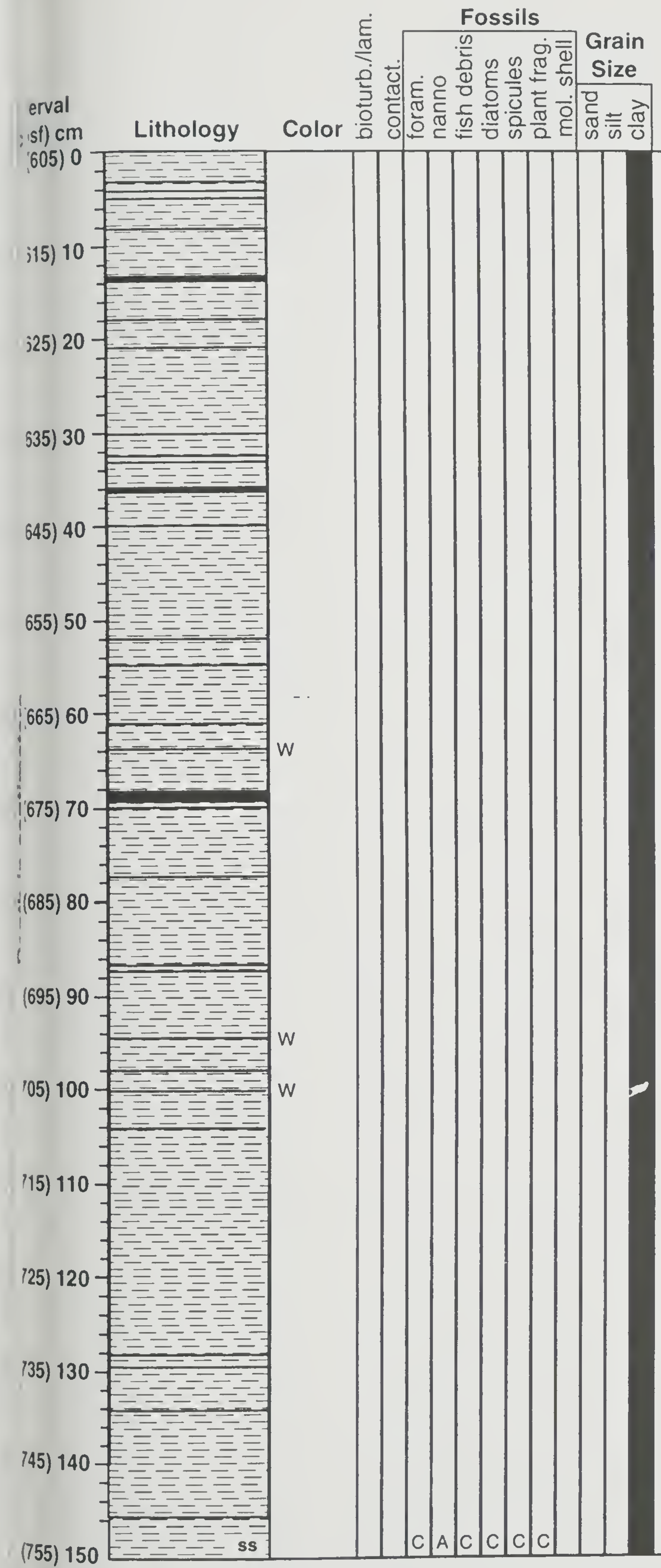


147 cm = bottom of section 7; 536 cmbsf + 69 cm = 605 cmbsf for base of sect. 7

Fossils: X=Present C=Common A=Abundant B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC12 Sect.: 6 (605-755 cmbsf) Lat.: 25 12.03 N Long.: 112 43.0 W

Water Depth: 542 m



Remarks

CLAY (organic-rich):

Basic stratigraphy is cm-scale interlayering of light and dark bands and laminae. The basic colors are:

light: (background) dusky yel. brown (5YR2/2) ▤

dark: brownish black (5YR2/1) bands ■ and individual laminae ——

—— w = nannofosil ooze laminae (white)

smear slides

ss 149 cm (white lamina)

A: clay; nannos

C: forams; pyrite; fish debris; sponge spic.; diatoms

R : shell frags.; lithic grains; silicoflagel.

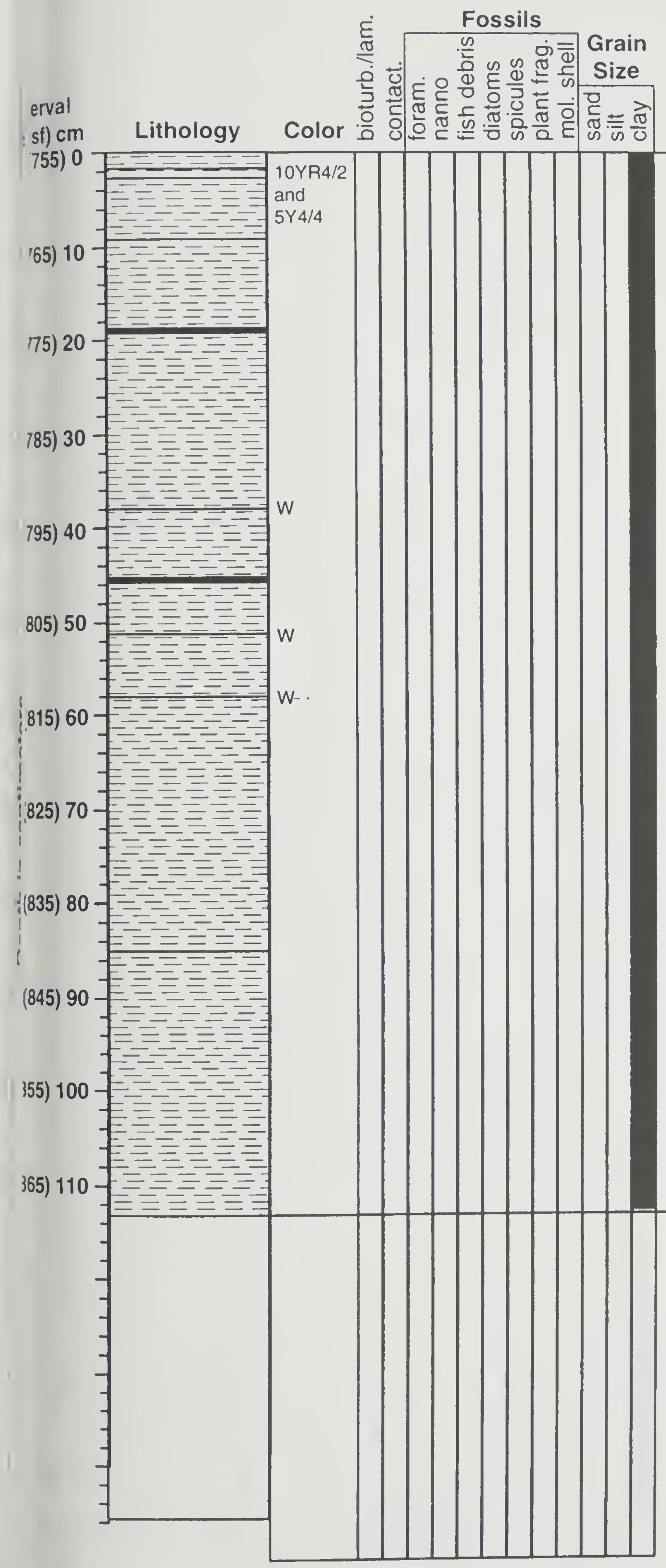
(nanno ooze)

150 cm = bottom of section 6

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC12 Sect.: 5 (755-868 cmbsf) Lat.: 25 12.03 N Long.: 112 43.0 W
Water Depth: 542 m



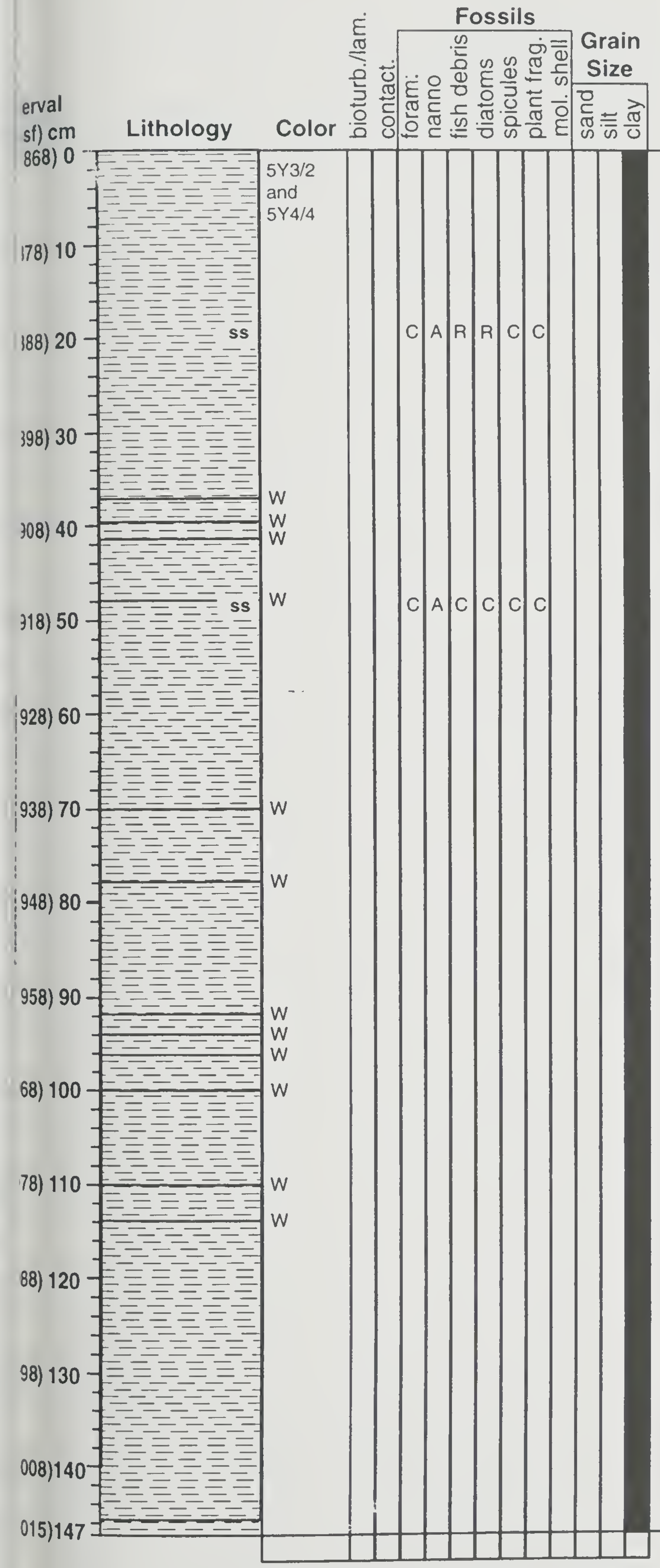
Remarks

CLAY (organic-rich):
light: (background) dark yel. brown (10YR4/2 to ol. brown (5Y4/4) ▤
dark: olive black (5Y2/1 bands ■ and individual laminae —
— w = nannofosil ooze laminae (white)

113 cm = bottom of section 5 (868 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC12 Sect.: 4 (868-1015 cmbsf) Lat.: 25 12.03 N Long.: 112 43.0 W
Water Depth: 542 m



Remarks

CLAY (nanno-bearing):
Mostly structureless, mod. ol/ brown (5Y4/4) to ol. gry (5Y3/2). Very diffuse banding is visible mainly as pale band defined by the presence of white nanno ooze layers = —— w

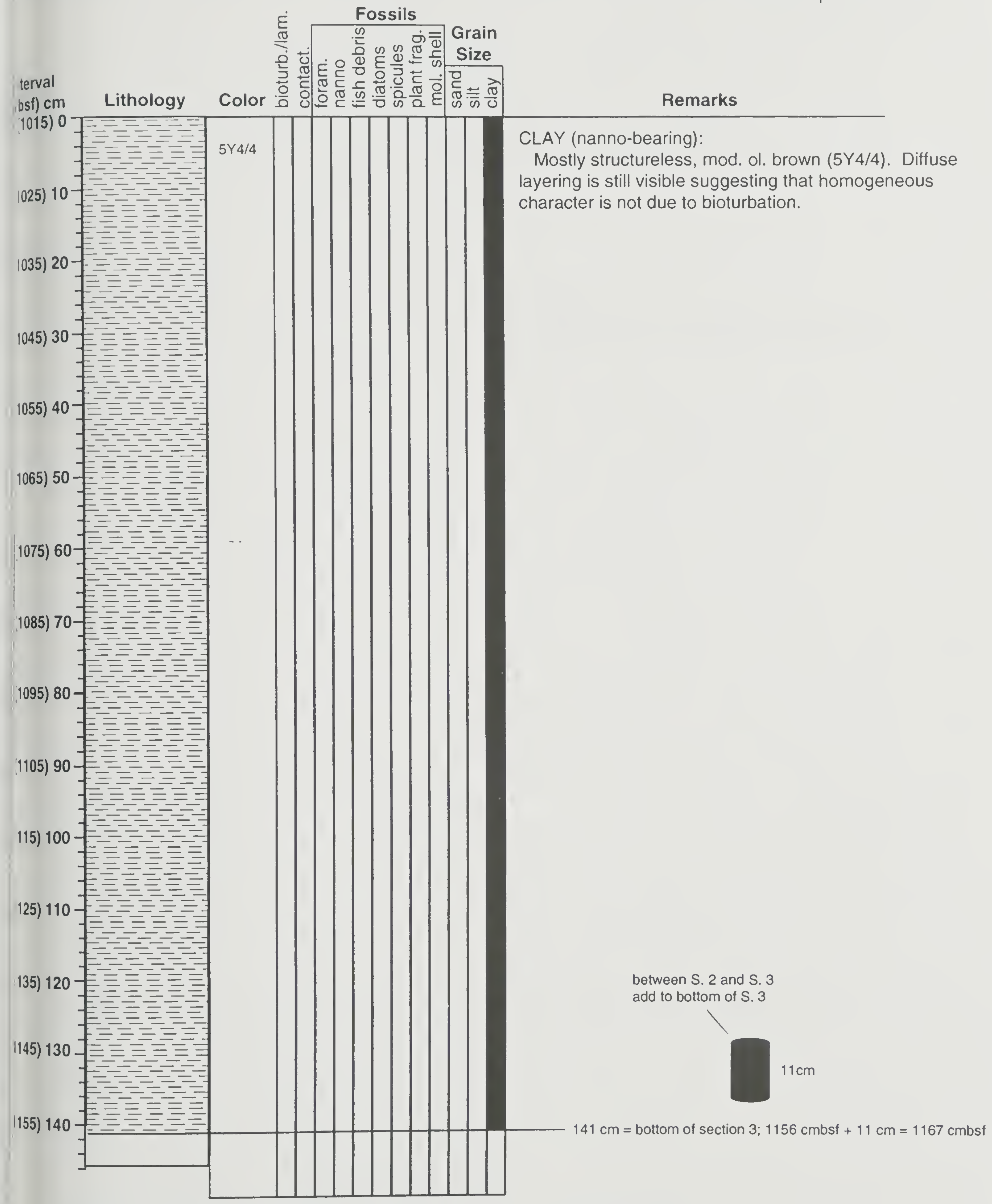
smear slides

ss 20 cm (background)
A: clay; nannos
C: forams; organic matter; pyrite;
R: fish debris; sponge spic.; diatoms; lithic grains; carbonate rhombs

ss 48 cm (white lamina)
A: clay; nannos
C: forams; organic matter; sponge spic.; diatom;; carbonate rhombs
R: rads

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC12 Sect.: 3 (1015-1167 cmbsf) Lat.: 25 12.03 N Long.: 112 43.0 W
Water Depth: 542 m



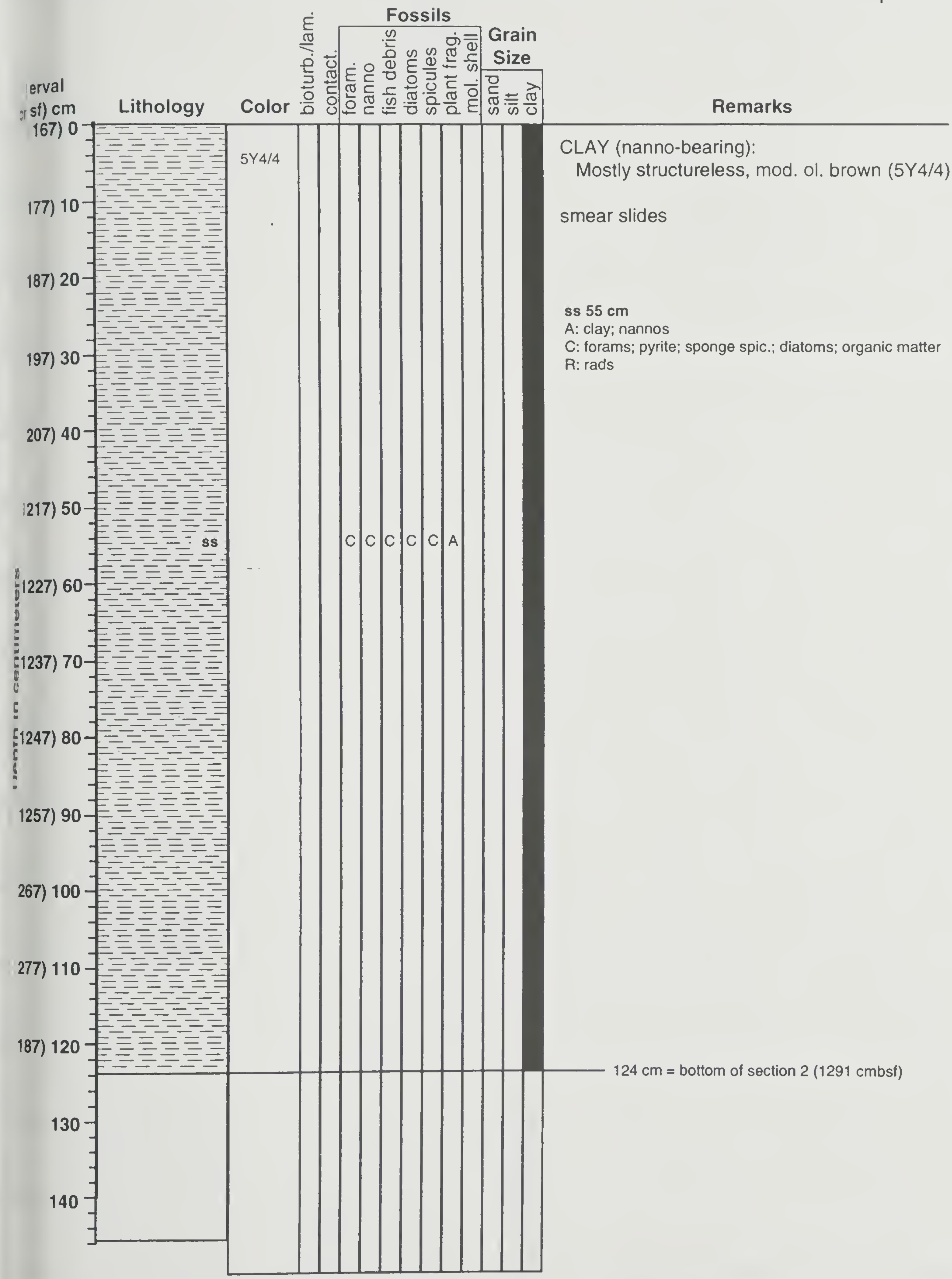
CLAY (nanno-bearing):
Mostly structureless, mod. ol. brown (5Y4/4). Diffuse layering is still visible suggesting that homogeneous character is not due to bioturbation.

between S. 2 and S. 3
add to bottom of S. 3

141 cm = bottom of section 3; 1156 cmbsf + 11 cm = 1167 cmbsf

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC12 Sect.: 2 (1167-1291 cmbsf) Lat.: 25 12.03 N Long.: 112 43.0 W
Water Depth: 542 m



CLAY (nanno-bearing):
Mostly structureless, mod. ol. brown (5Y4/4).

smear slides

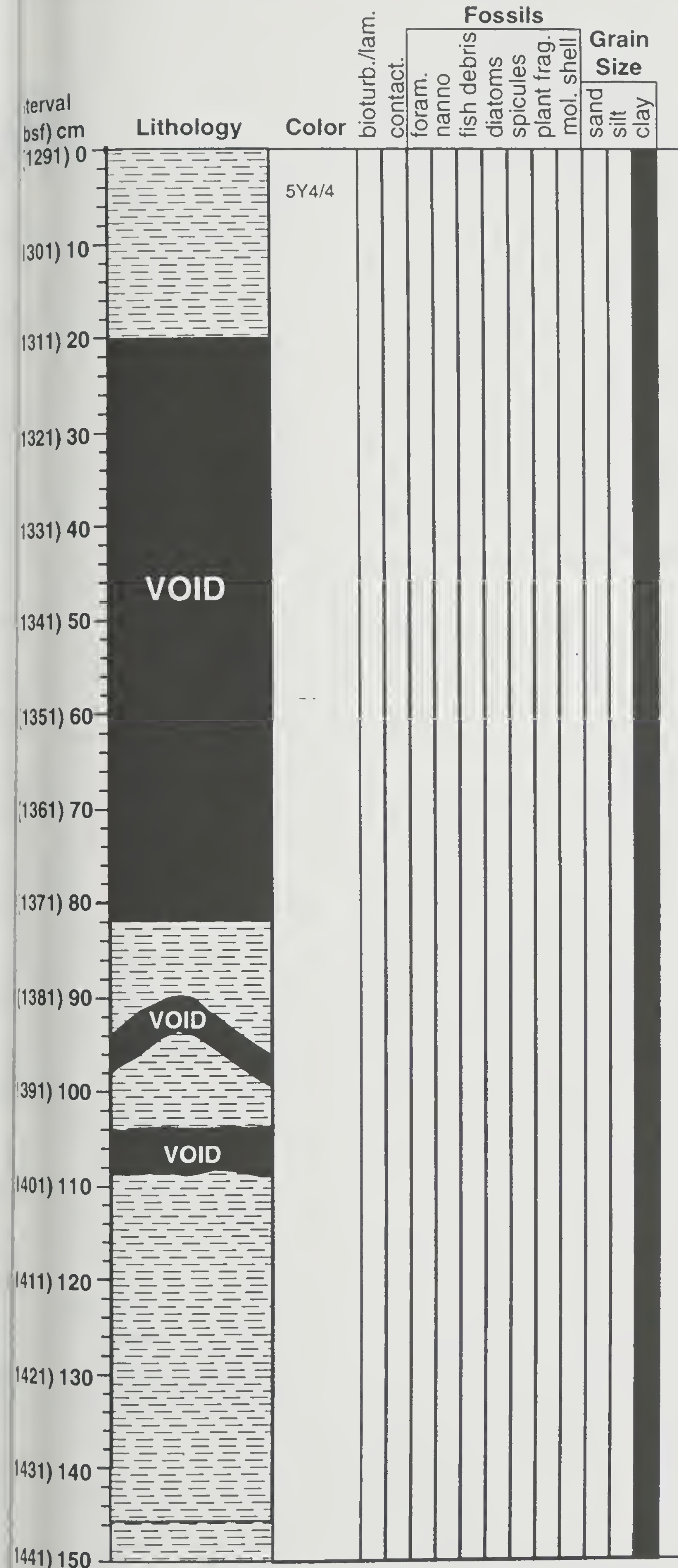
ss 55 cm
A: clay; nannos
C: forams; pyrite; sponge spic.; diatoms; organic matter
R: rads

124 cm = bottom of section 2 (1291 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

)XMZ01MV Core: PC12 Sect.: 1 (1291-1441 cmbsf) Lat.: 25 12.03 N Long.: 112 43.0 W

Water Depth: 542 m



Remarks

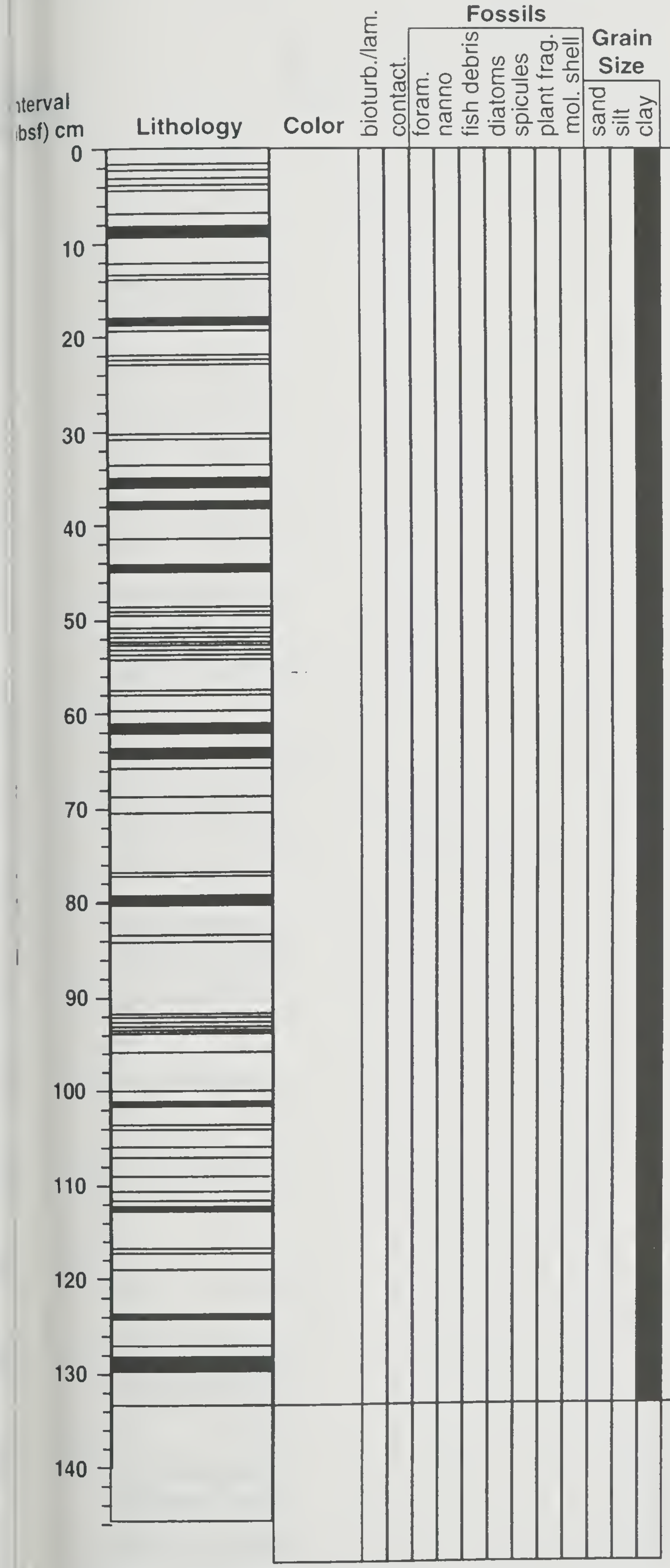
CLAY (nanno-bearing):
Mostly structureless, mod. ol. brown (5Y4/4).

150 cm = bottom of section 1; 1441 cmbsf = base of core PC12

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: TC12 Sect.: 1 (0-133 cmbsf) Lat.: 25 12.03 N Long.: 112 43 W
Water Depth: 542 m



Remarks

CLAY (organic-rich; dark) and CLAY (nanno-bearing light): Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:

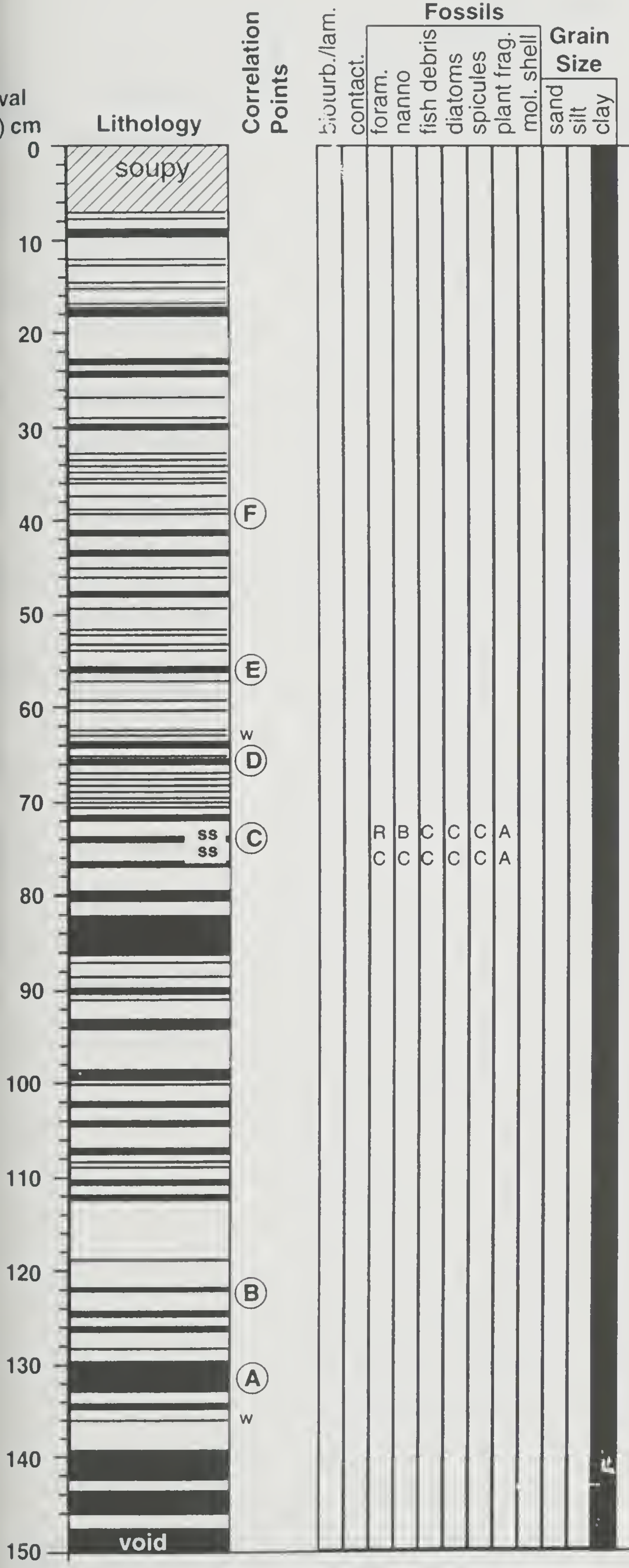
light: (background) mod. ol. brown (10YR2/1) ☐
dark: ol. black (5Y2/1) bands of miult-laminae ■
and individual laminae —

133 cm = bottom of section , base of core TC12

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

)XMZ01MV Core: PC13 Sect.: 10 (0-150 cmbsf) Lat.: 25 09.73 N Long.: 112 45.8 W

Water Depth: 442 m



Remarks

CLAY (organic-rich):

Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:

light: (background) lt. ol. brown (5Y5/6) to mod. ol. brown (5Y4/4) ☐

dark: ol. black (5Y2/1) to ol. gray (5Y3/2) bands of multi-laminae ■ and individual laminae —

— w = nannofossil ooze laminae (white)

smear slides

ss 74 cm (dark)

A: clay; organic matter

C; pyrite; fish debris; sponge spic.; diatoms

R : rads; forams; silicoflag.

B: nannos

ss 76 cm (light)

A: clay; organic matter

C: nannos; forams; pyrite; fish debris; sponge spic.; diatoms

R : rads

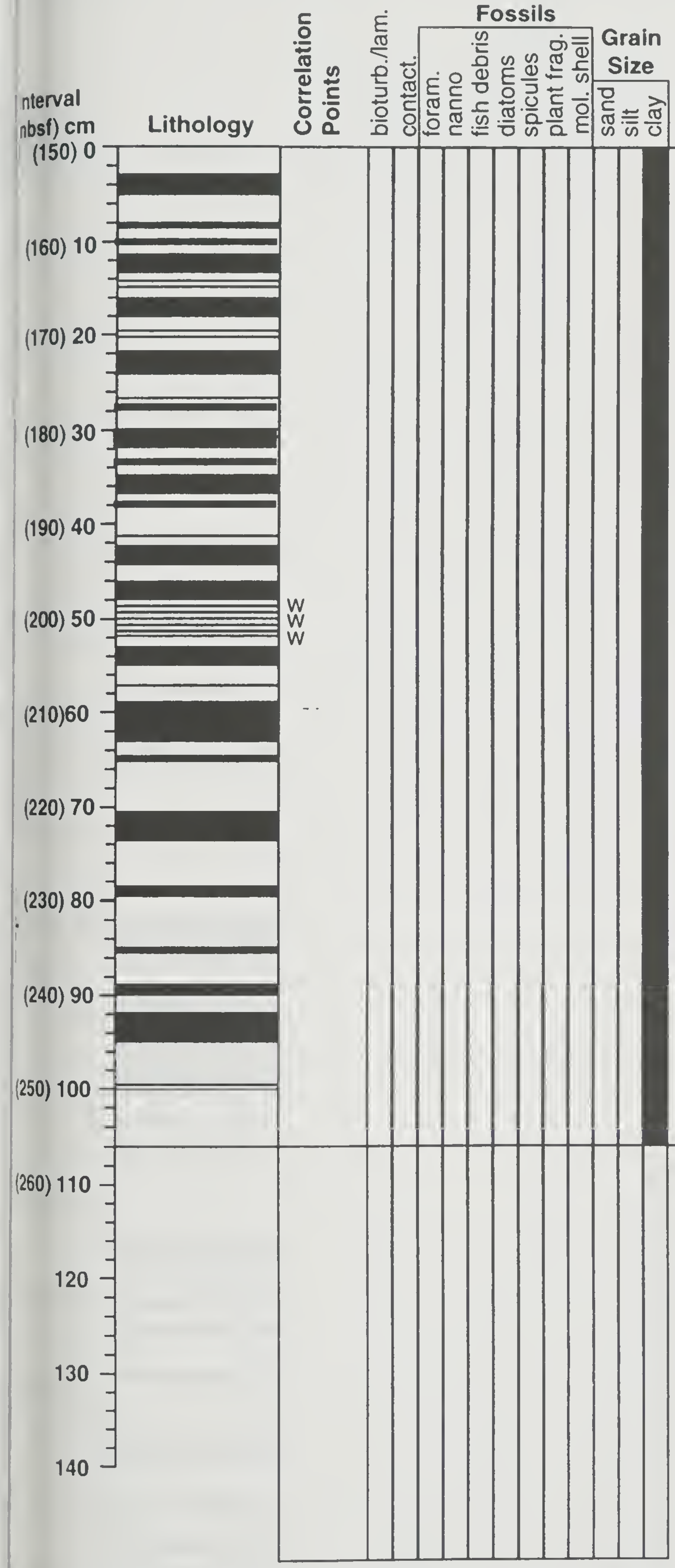
150 cm = bottom of section 10

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC13 Sect.: 9 (150-259 cmbsf) Lat.: 25 09.73 N Long.: 112 45.80 W

Water Depth: 442 m



Remarks

CLAY (organic-rich):

Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:

light: (background) dusky yel. brown (5YR2/2) ☐

dark: brownish black (5YR2/1) bands of multi-laminae ■ and individual laminae —

— w = nannofossil ooze laminae (white)

70-106 CM: abundant gas expansion cracks

between S. 8 and S. 9
add to bottom of S. 9

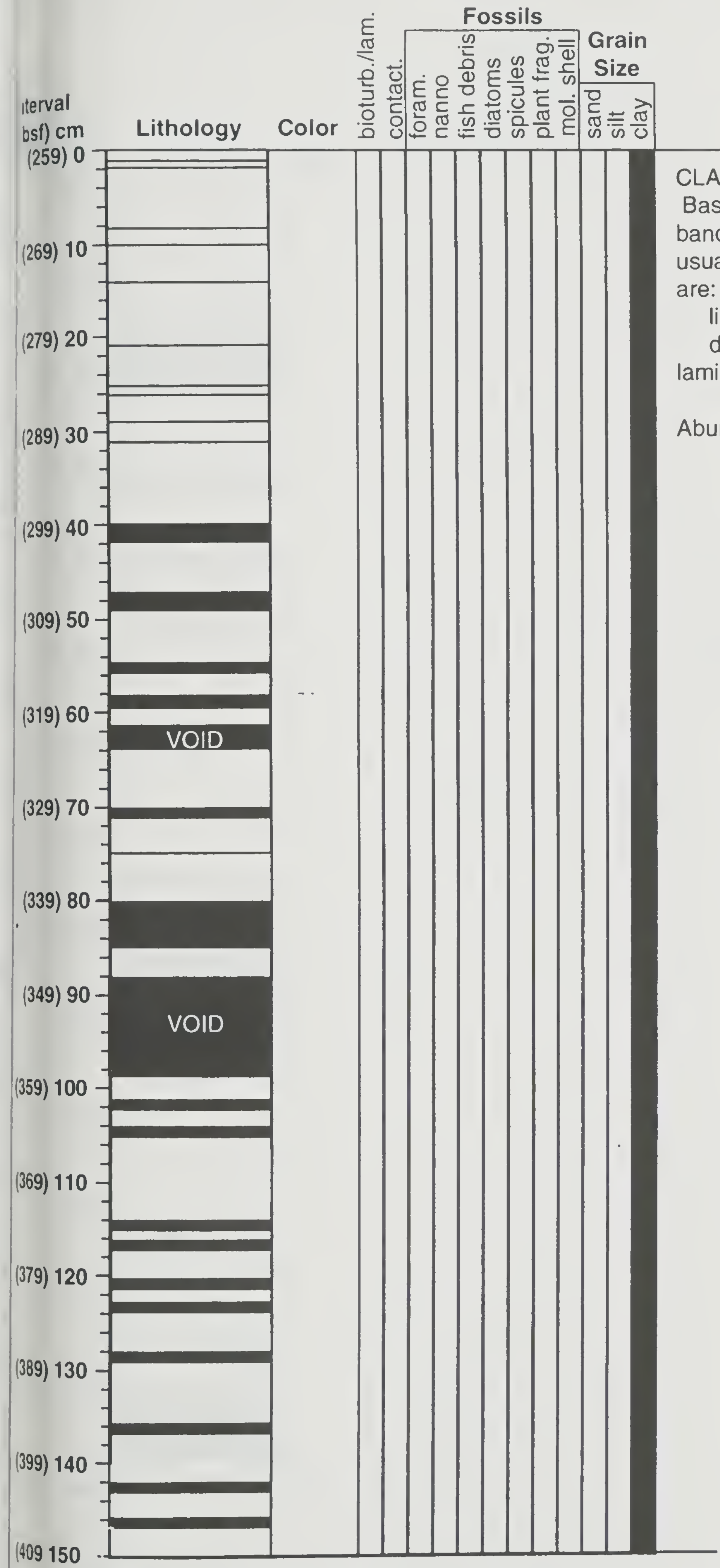
3cm

106 cm = bottom of section 9 (256 cmbsf + 3 cm = 259 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC13 Sect.: 8 (259-409 cmbsf) Lat.: 25 09.7 3 N Long.: 112 45.8 W
Water Depth: 442 m



Remarks

CLAY (organic-rich):
Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:

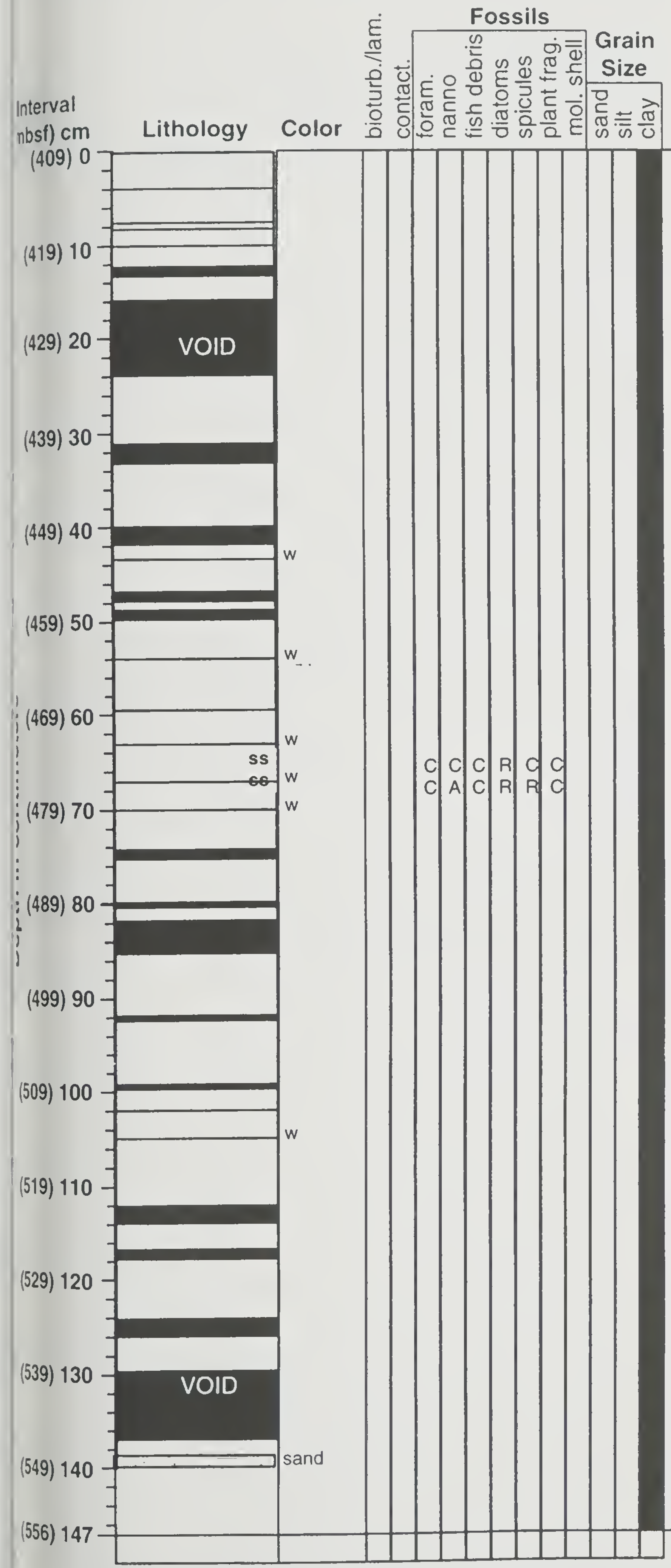
light: (background) dusky yel. brown (5YR2/2) ☐
dark: brownish black (5YR2/1) bands of multi-laminae ■ and individual laminae —

Abundant gas expansion cracks along entire core section.

150 cm = bottom of section 8 (409 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC13 Sect.: 7 (409-644 cmbsf) Lat.: 25 09.73 N Long.: 112 45.8 W
Water Depth: 442 m



CLAY (nanno-bearing):
Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:
light: (background) dusky yel. brown (5YR2/2) ☐
dark: brownish black (5YR2/1) bands of multi-laminae ■ and individual laminae —

. — w = nannofossil ooze laminae (white)

ss 65 cm (background)
A: clay
C: nannos; organic matter;pyrite; forams sponge spic.
R : rads; diatoms; lithic fragments

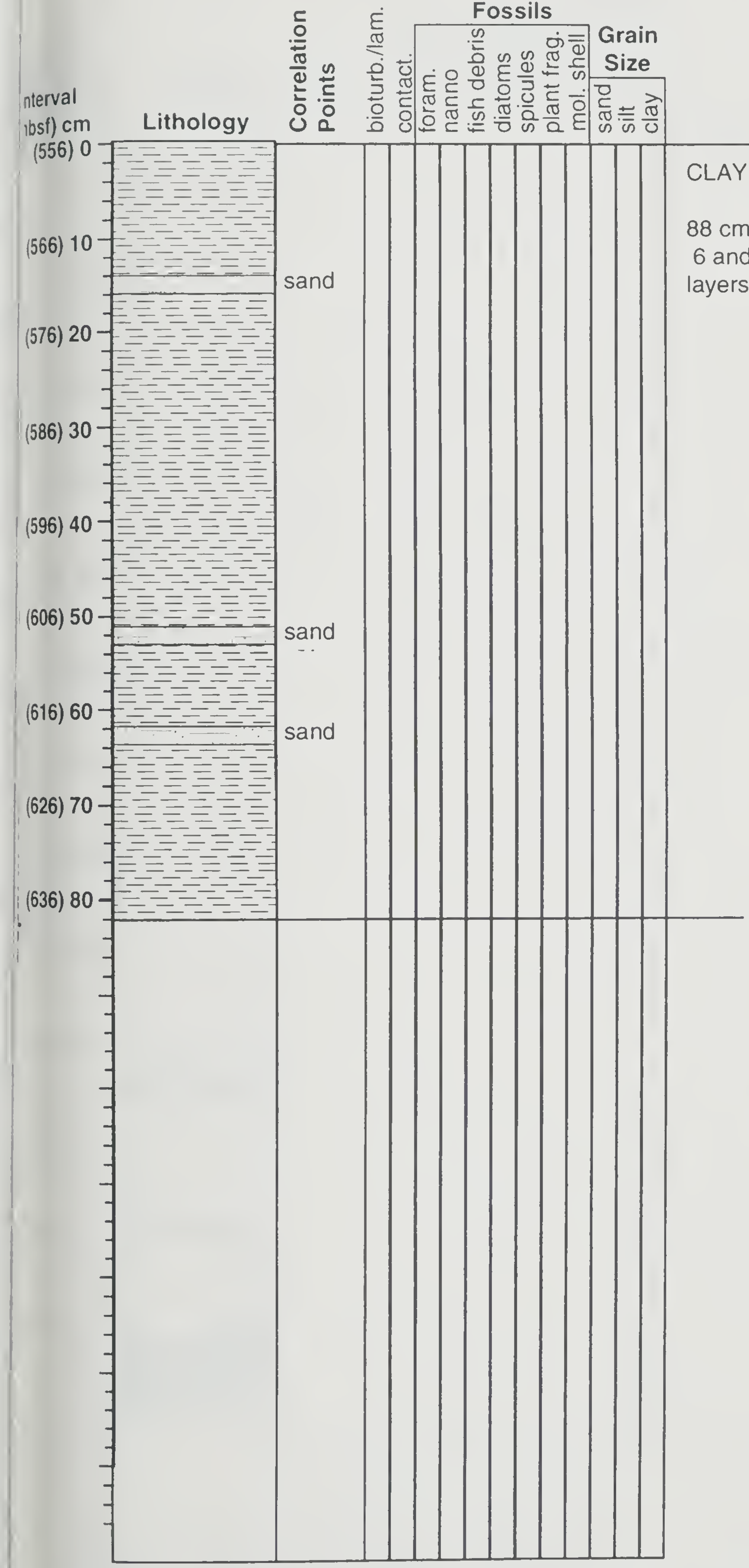
ss 67 cm (white lamina)
A: nanno
C: clay; forams
R: pyrite ; lithic grains; sponge spic.; rads; diatoms

88 cm extruded between S. 6 and S. 7
add to bottom of S. 7

147 cm = bottom of section 7 (556 + 88 = 644 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV   Core: PC13   Sect.: 6/7 (556-644 cmbsf)   Lat.: 25 09.73 N Long.: 112 45.8 W
Water Depth: 442 m

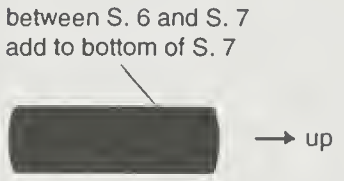


Remarks

CLAY (organic-rich; nanno-bearing):

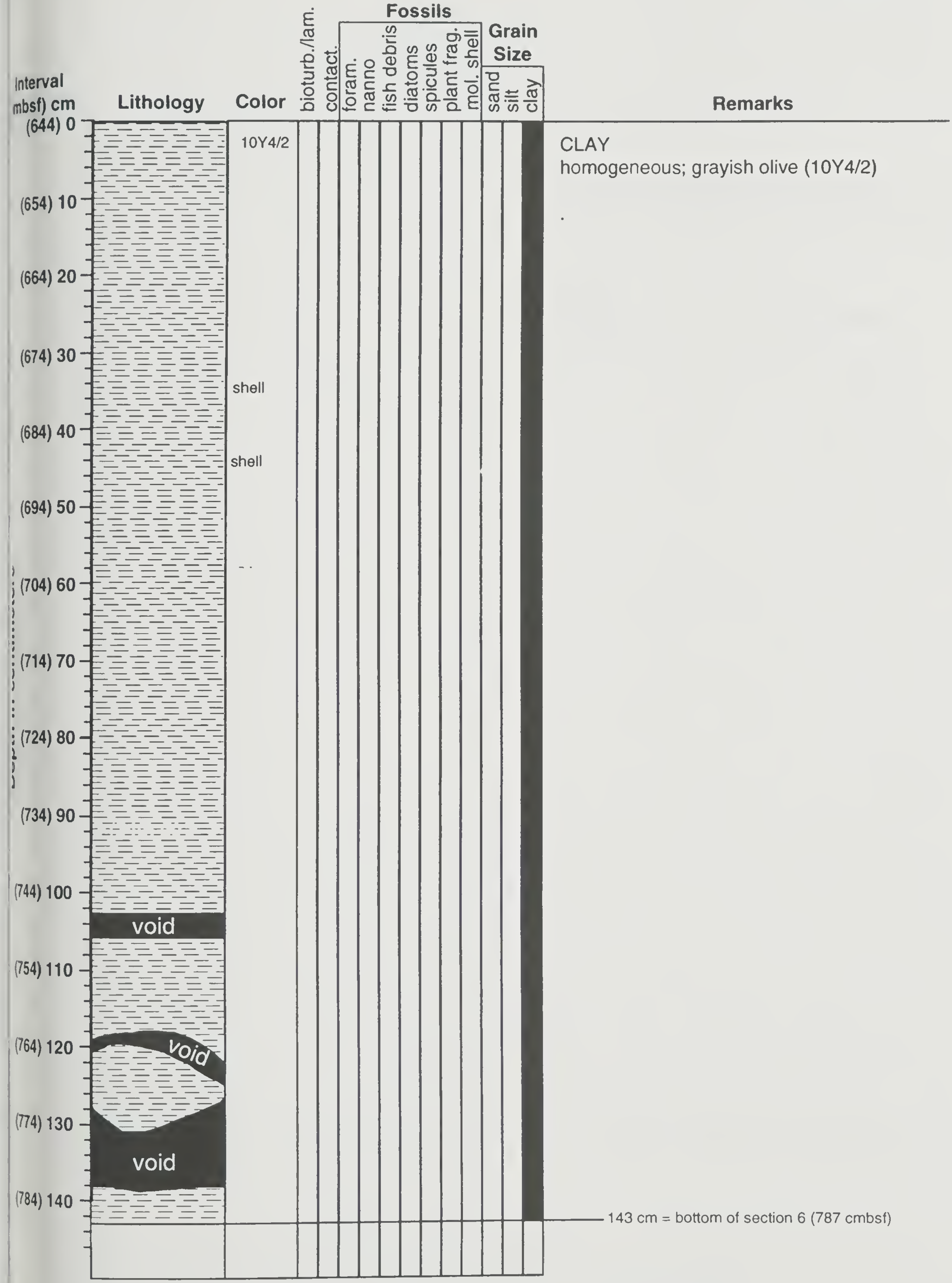
88 cm of sediment extruded on deck from between sections 6 and 7; represented in liners by 82 cm containg 3 sand layers

88 cm extruded from between section s 6 and 7



Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

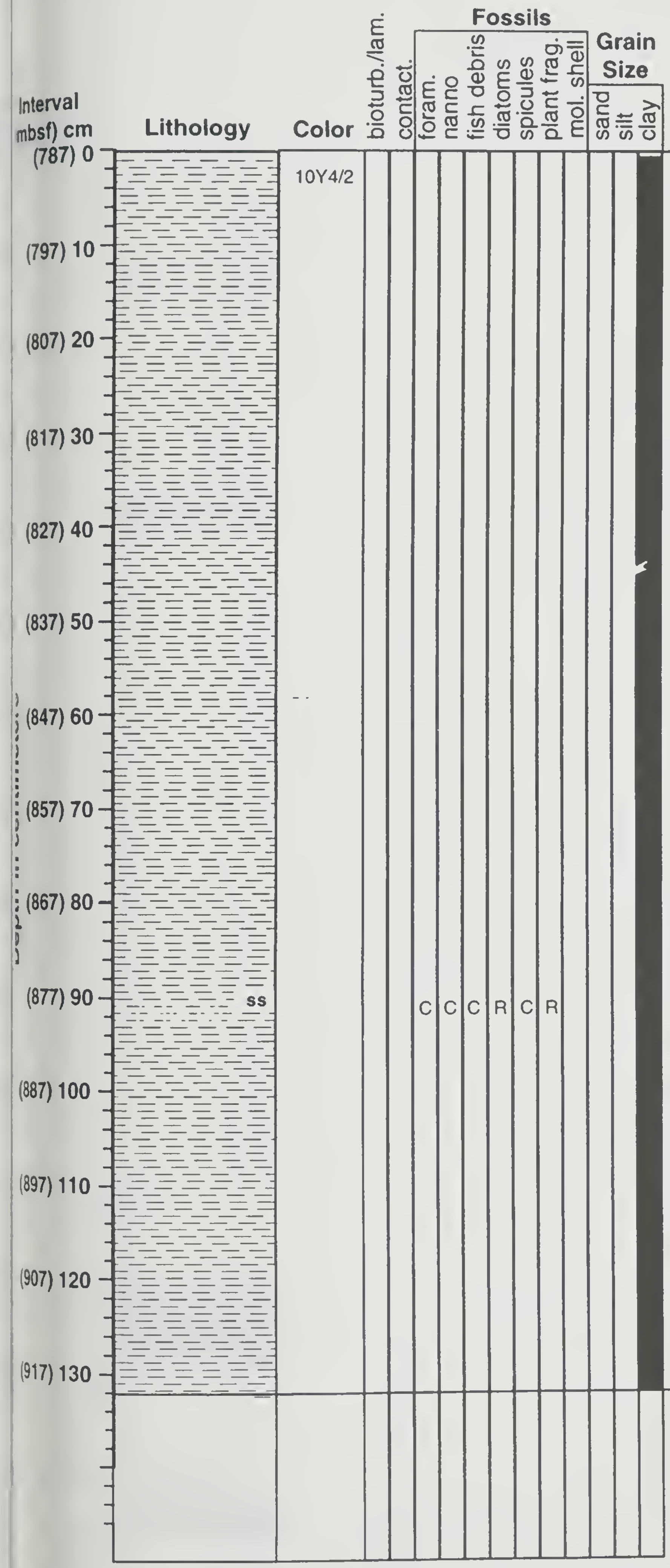
0XMZ01MV Core: PC13 Sect.: 6 (644-787 cmbsf) Lat.: 25 09.73 N Long.: 112 45.8 W
Water Depth: 442 m



CLAY
homogeneous; grayish olive (10Y4/2)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC13 Sect.: 5 (787-919 cmbsf) Lat.: 25 09.73 N Long.: 112 45.8 W
Water Depth: 442 m



Remarks

CLAY

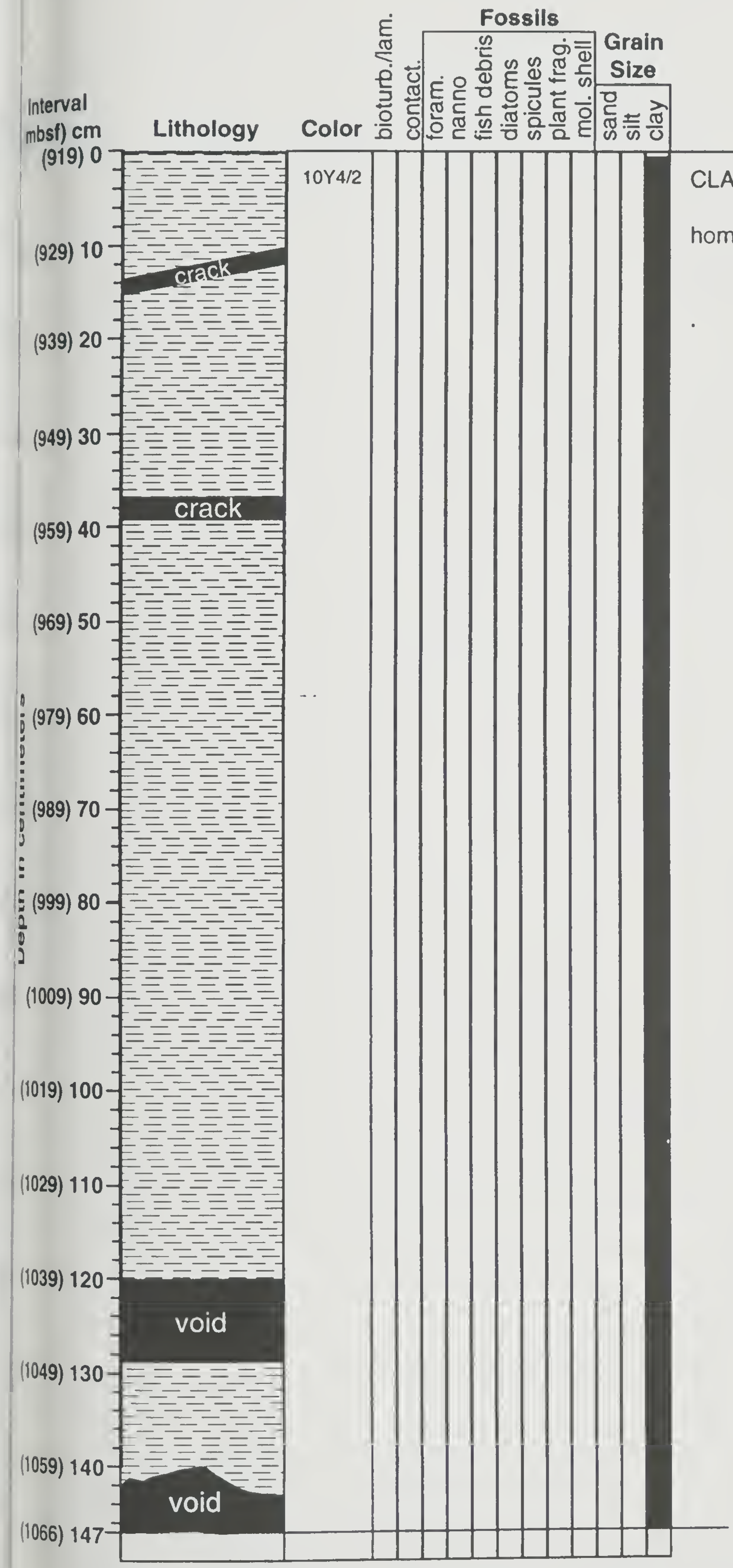
homogeneous; grayish olive (10Y4/2);
32-60 cm, core disturbed by expansion and splitting

ss 90 cm
A: clay
C: nannos; forams; lithic grains; pyrite; sponge spic.
R: diatoms

132 cm = bottom of section 5 (919 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC13 Sect.: 4 (919-1066 cmbsf) Lat.: 25 09.73 N Long.: 112 45.8 W
Water Depth: 442 m



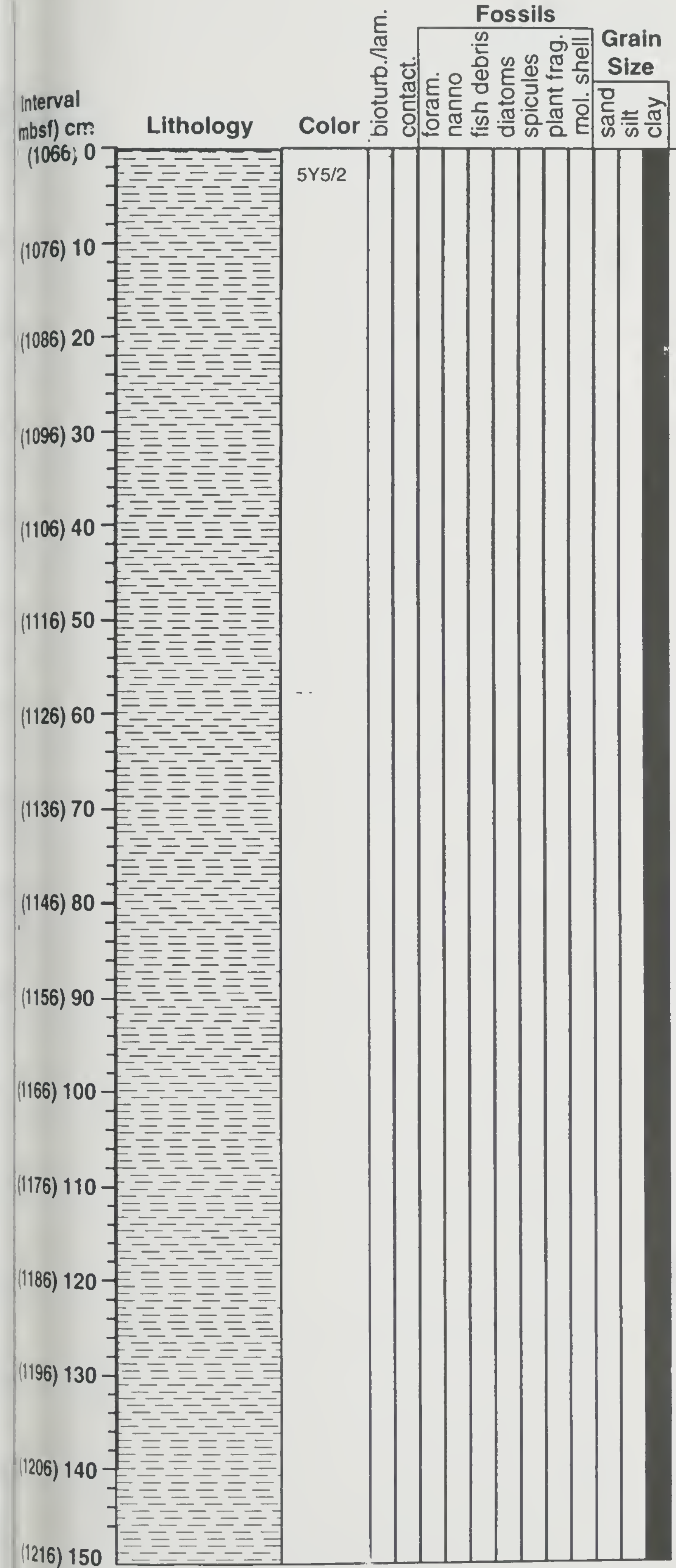
CLAY

homogeneous; grayish olive (10Y4/2);

147 cm = bottom of section 4 (1066 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC13 Sect.: 3 (1066-1216 cmbsf) Lat.: 25 09.73 N Long.: 112 45.8 W
Water Depth: 442 m



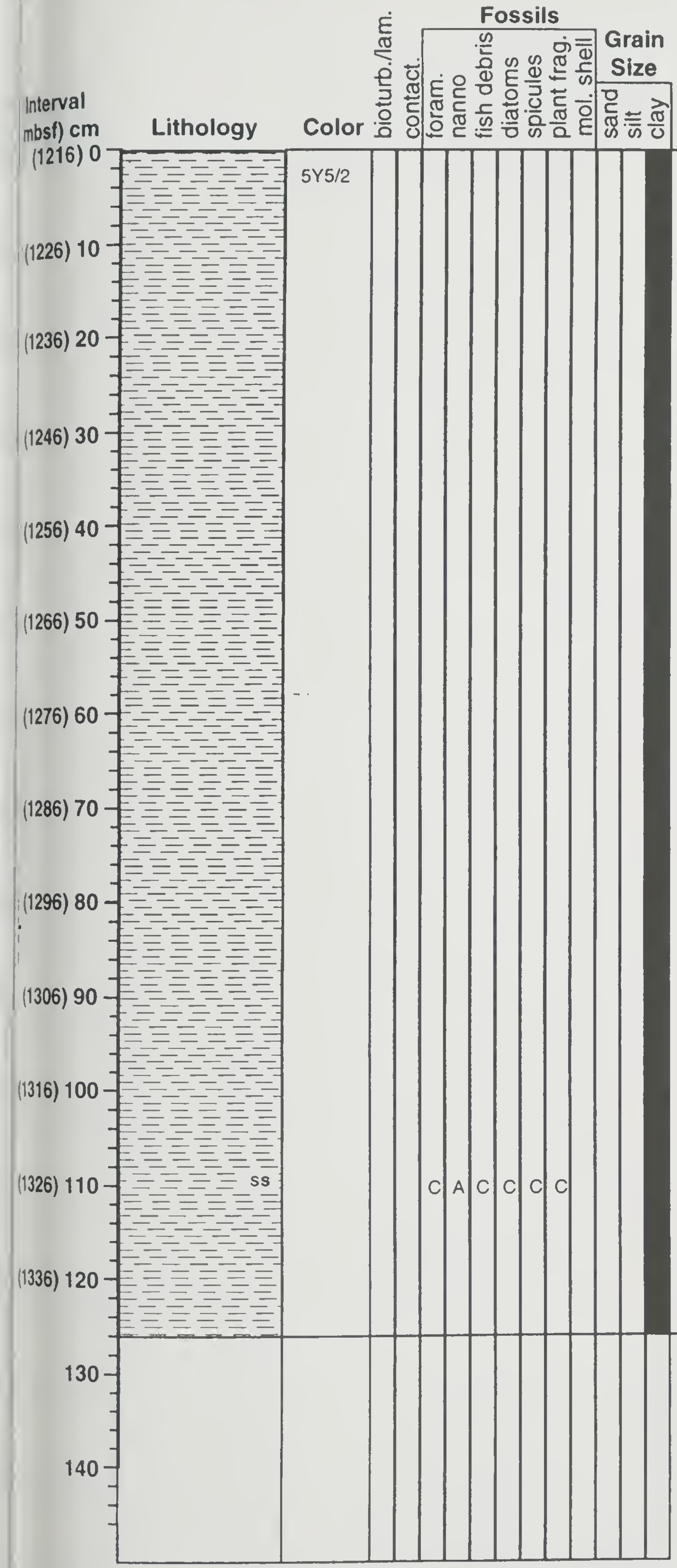
CLAY

homogeneous; light ol. gray (5Y5/2); 30-100 cm, severe expansion cracking

150 cm = bottom of section 3 (1216 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC13 Sect.: 2 (1216-1347 cmbsf) Lat.: 25 09.73 N Long.: 112 45.8 W
Water Depth: 442 m



Remarks

CLAY (nanno-bearing)

homogeneous; light ol. gray (5Y5/2)

30-100 cm, severe expansion cracking
below 70 cm: numerous shells of gastropodes and terrapods
increasing forams visible on the surface down section

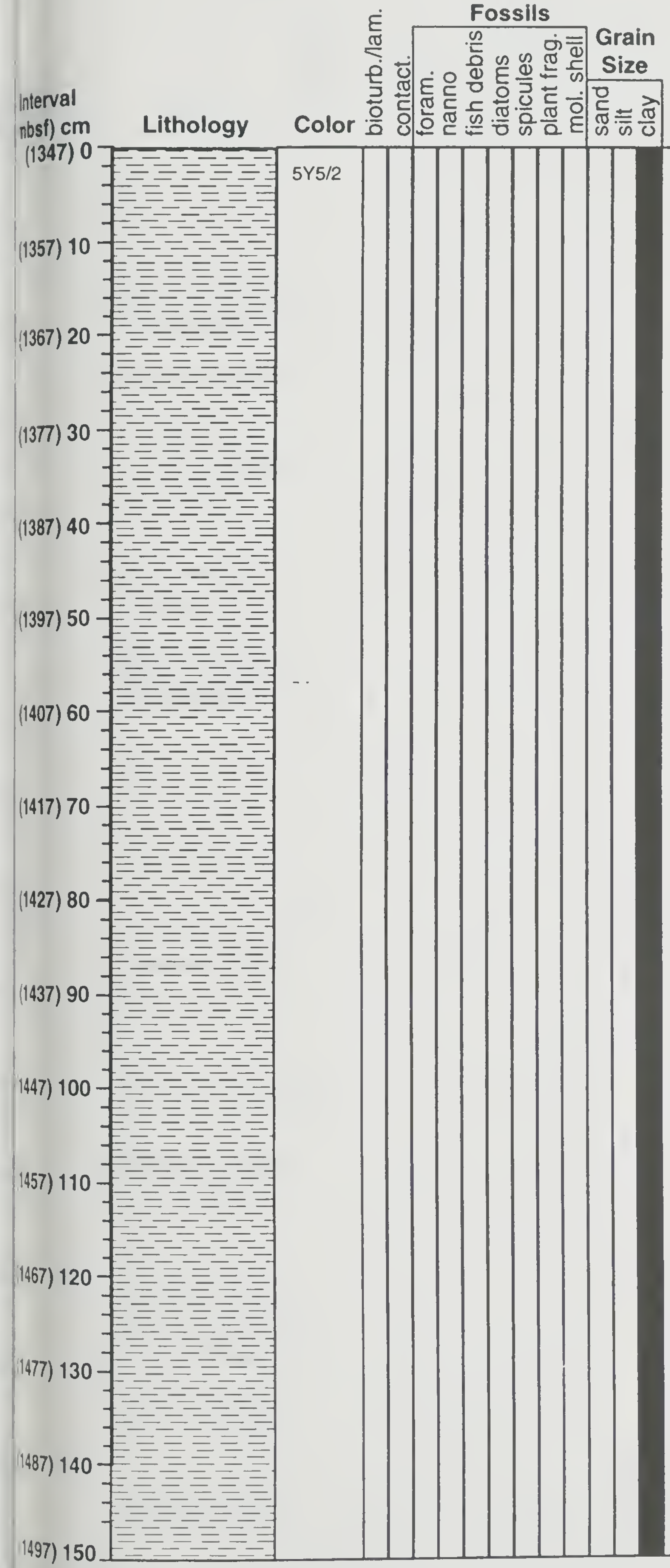
ss 110 cm
A: clay; nannos
C: forams; pyrite; fish debris; sponge spic.; diatoms
R: diatoms; discoasters; carbonate rhombs

extruded between S. 1 and S. 2
add to bottom of S. 2

126 cm = bottom of section 2
(1340 cmbsf + 7 cm = 1347 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC13 Sect.: 1 (1347-1497 cmbsf) Lat.: 25 09.73 N Long.: 112 45.8 W
Water Depth: 442 m



Remarks

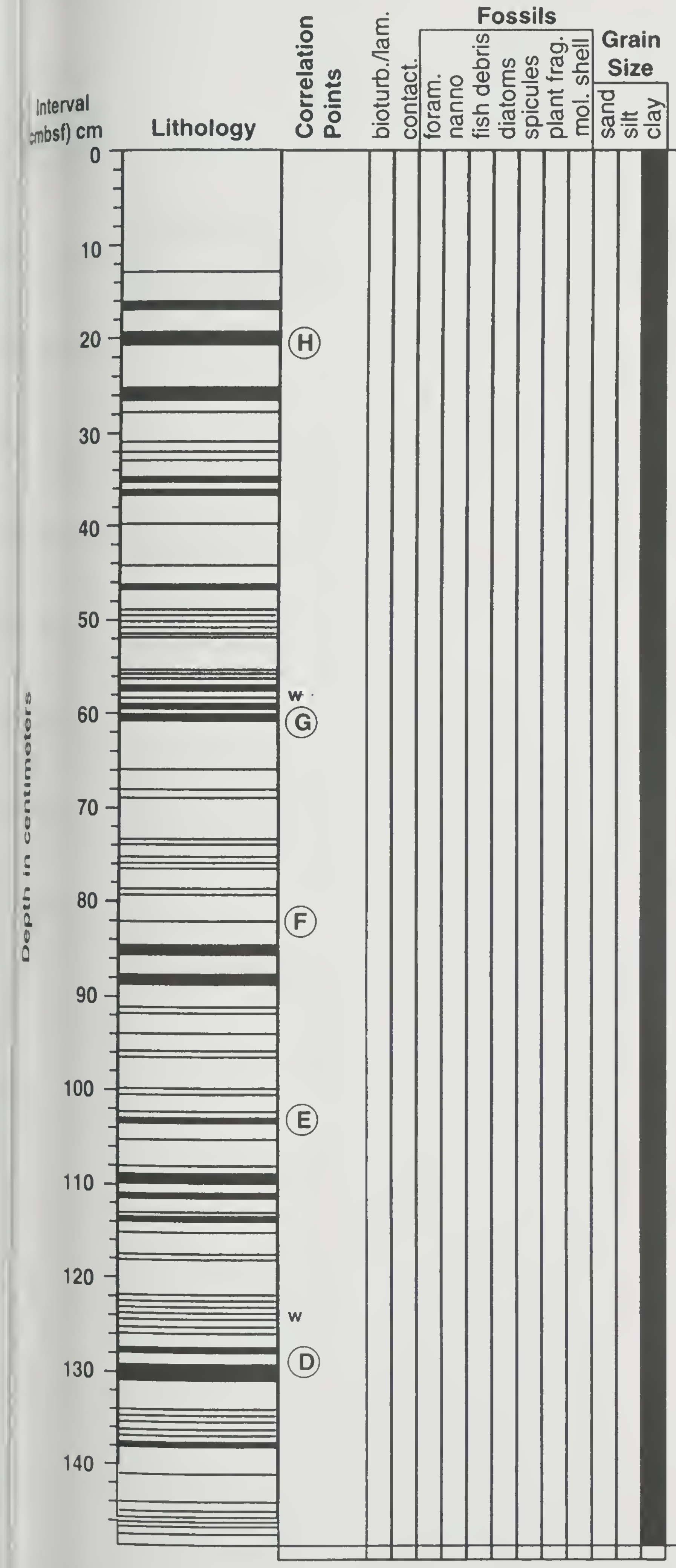
CLAY

homogeneous; light ol. gray (5Y5/2)
0-60 cm; 74-150 cm: numerous gastropods and terrapods
60-74 cm: concentration of forams

150 cm = bottom of section 1; 1497 cmbsf = base of core PC13

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC14 Sect.: 10 (0-149 cmbsf) Lat.: 25 12.07 N Long.: 112 43.0 W
Water Depth: 540 m



CLAY (organic-rich):
Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:

light: (background) dark yel. brown (10YR4/2) ☐
dark: brownish black (5YR2/1) bands of multi-laminae █ and individual laminae —

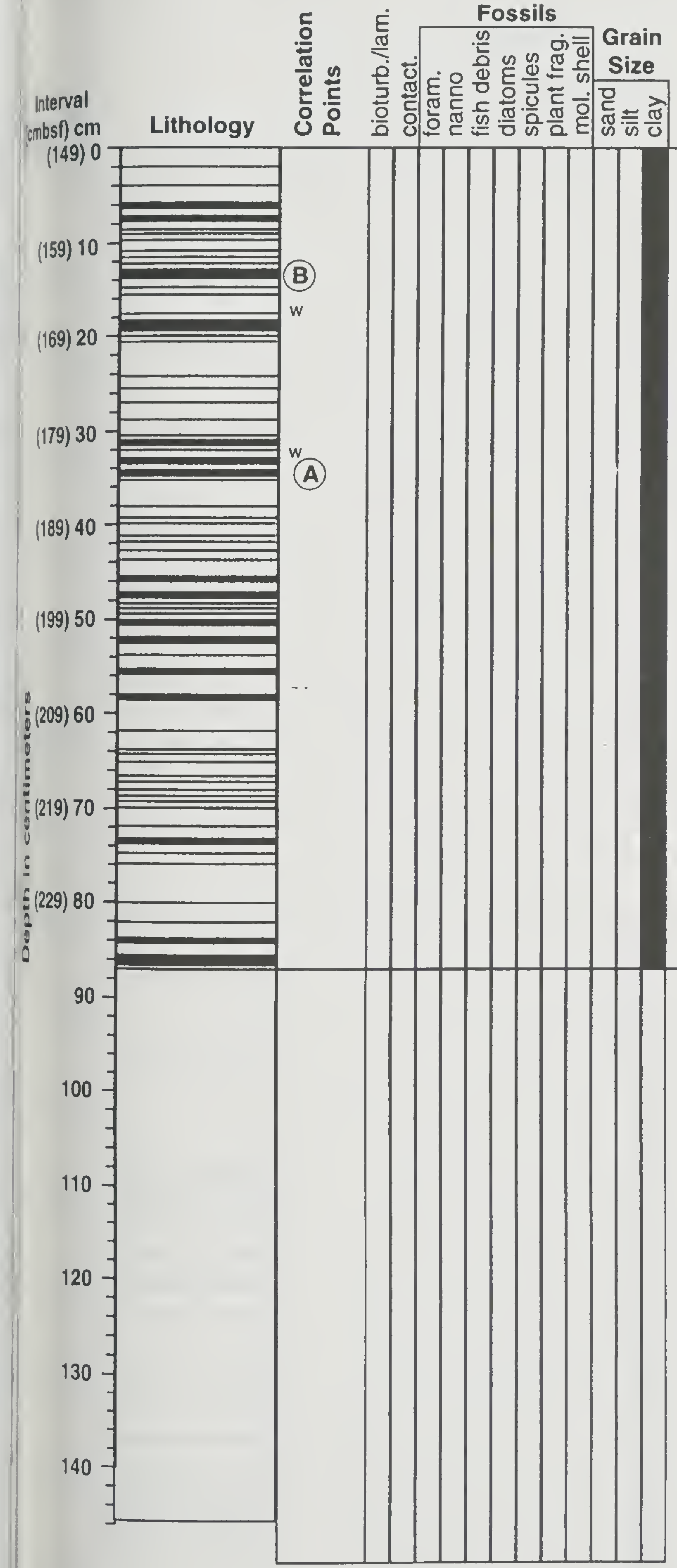
— w = lamina of nanno ooze

149 cm = bottom of section 10

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: PC14 Sect.: 9 (149-236 cmbsf) Lat.: 25 12.07 N Long.: 112 43.0 W

Water Depth: 540 m



Remarks

CLAY (organic-rich):

Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:

light: (background) dark yel. brown (10YR4/2) ☐

dark: brownish black (5YR2/1) bands of multi-laminae ■ and individual laminae —

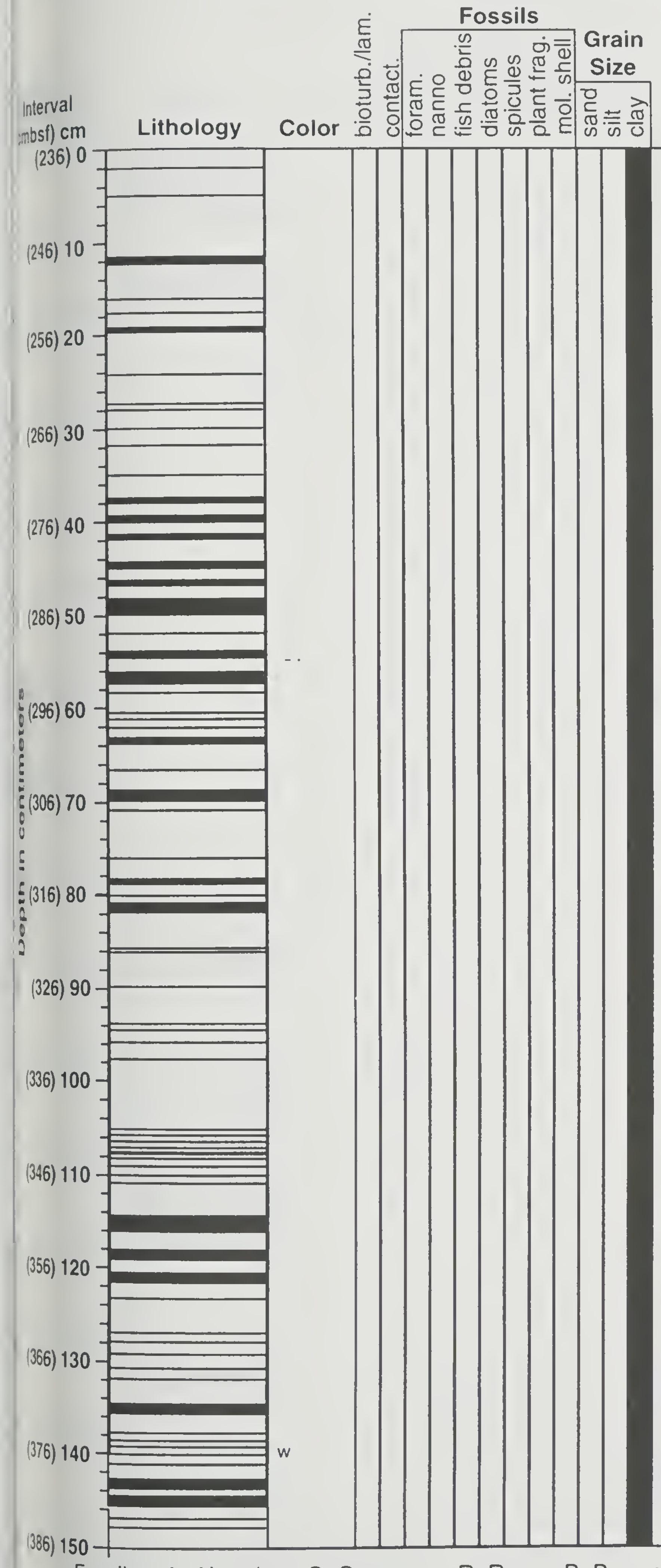
— w = lamina of nanno ooze

87 cm = bottom of section 9 (236 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC14 Sect.: 8 (236-386 cmbsf) Lat.: 25 12.07 N Long.: 112 43.0 W
Water Depth: 540 m



CLAY (organic-rich):

Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:

light: (background) dark yel. brown (10YR4/2) ☐

dark: brownish black (5YR2/1) bands of multi-laminae ■ and individual laminae —

— w = lamina of nanno ooze

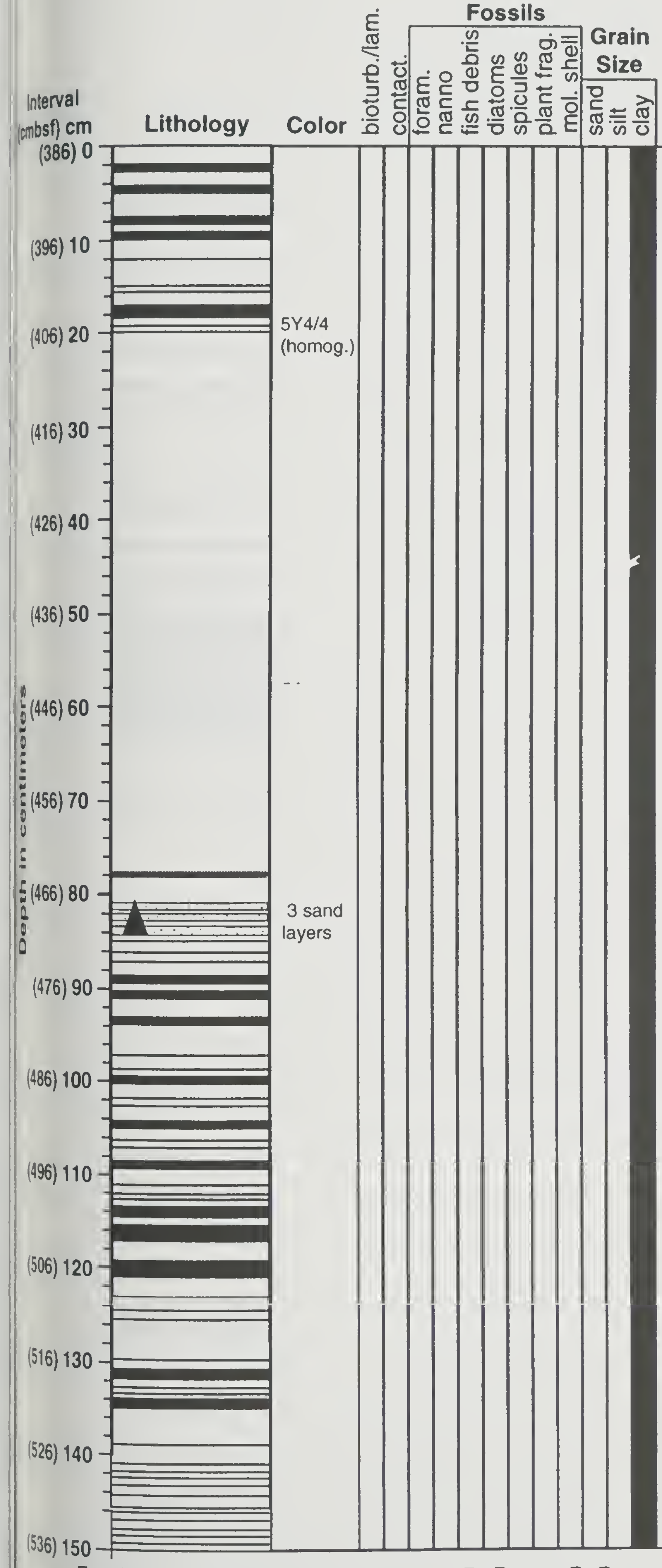
expansion cracks begin below 25 cm

150 cm = bottom of section 8 (386 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV   Core: PC14   Sect.: 7 (386-538 cmbsf)   Lat.: 25 12.07 N Long.: 112 43.0 W
Water Depth: 540 m



CLAY (organic-rich):
Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:
light: (background) dark yel. brown (10YR4/2) ☐
dark: brownish black (5YR2/1) bands of multi-laminae ■ and individual laminae ——

foram-bearing sand layers: lt. ol. gray (5Y5/2)

20-78 cm: homogen. mod. yel. brown (5Y4/4)

expansion cracks down to 115 cm

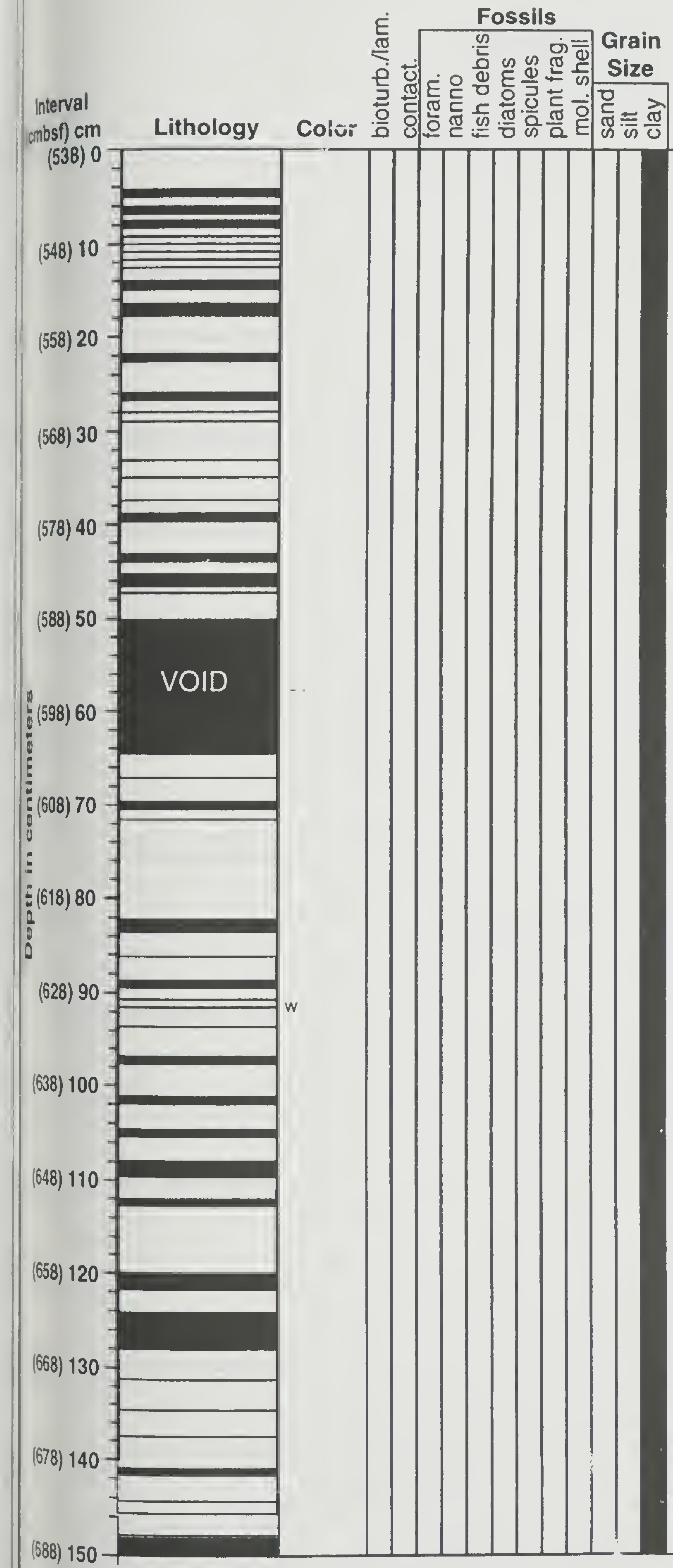
between S. 6 and S. 7
(add to bottom of S. 7)

150 cm = bottom of section 7 (536 + 2 = 538 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC14 Sect.: 6 (538-688 cmbsf) Lat.: 25 12.07 N Long.: 112 43.0 W

Water Depth: 540 m



Remarks

CLAY (organic-rich):

Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:

light: (background) dark yel. brown (10YR4/2) □

dark: brownish black (5YR2/1) bands of multi-laminae ■ and individual laminae ——

bands/layers becoming more diffuse

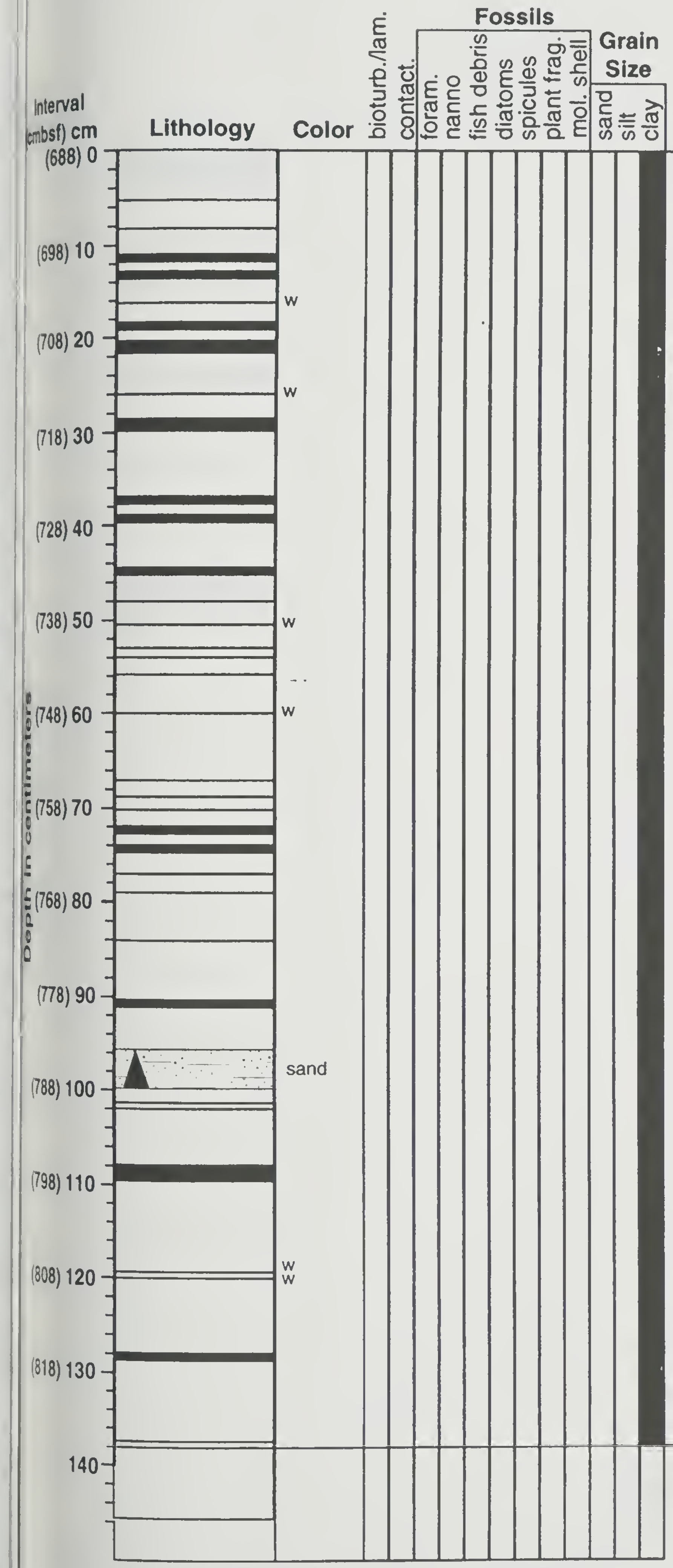
25-85 cm: expansion cracks

150 cm = bottom of section 6 (688 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC14 Sect.: 5 (688-826 cmbsf) Lat.: 25 12.07 N Long.: 112 43.0 W
Water Depth: 540 m



Remarks

CLAY (organic-rich):
Basic stratigraphy is cm-scale interlayering of light and dark bands. However, within individual dark bands here are usually finer mm- to sub-mm-scale laminae. The basic colors are:
light: (background) mod. ol. brown (5Y4/4) to dark. yel. brown (10YR4/2) ▭
dark: brownish black (5YR2/1) bands of multi-laminae ■ and individual laminae —

▨ = laminae of foram-rich sand (lt. o.l. gray (5Y5/2)

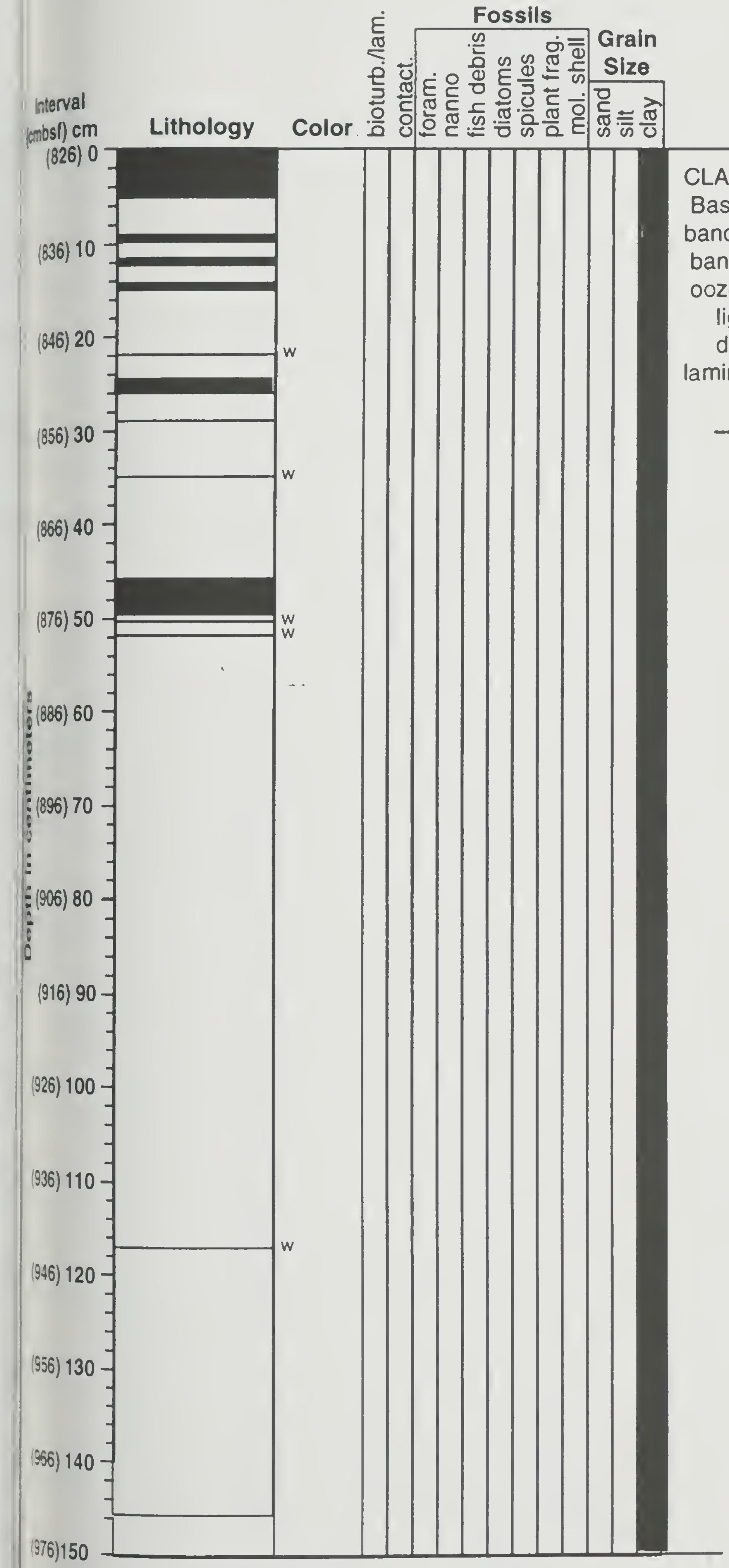
— w = lamina of nannofossil ooze

bands/layers becoming more diffuse

138 cm = bottom of section 5 (826 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: PC14 Sect.: 4 (826-976 cmbsf) Lat.: 25 12.07 N Long.: 112 43.0 W
Water Depth: 540 m



Remarks

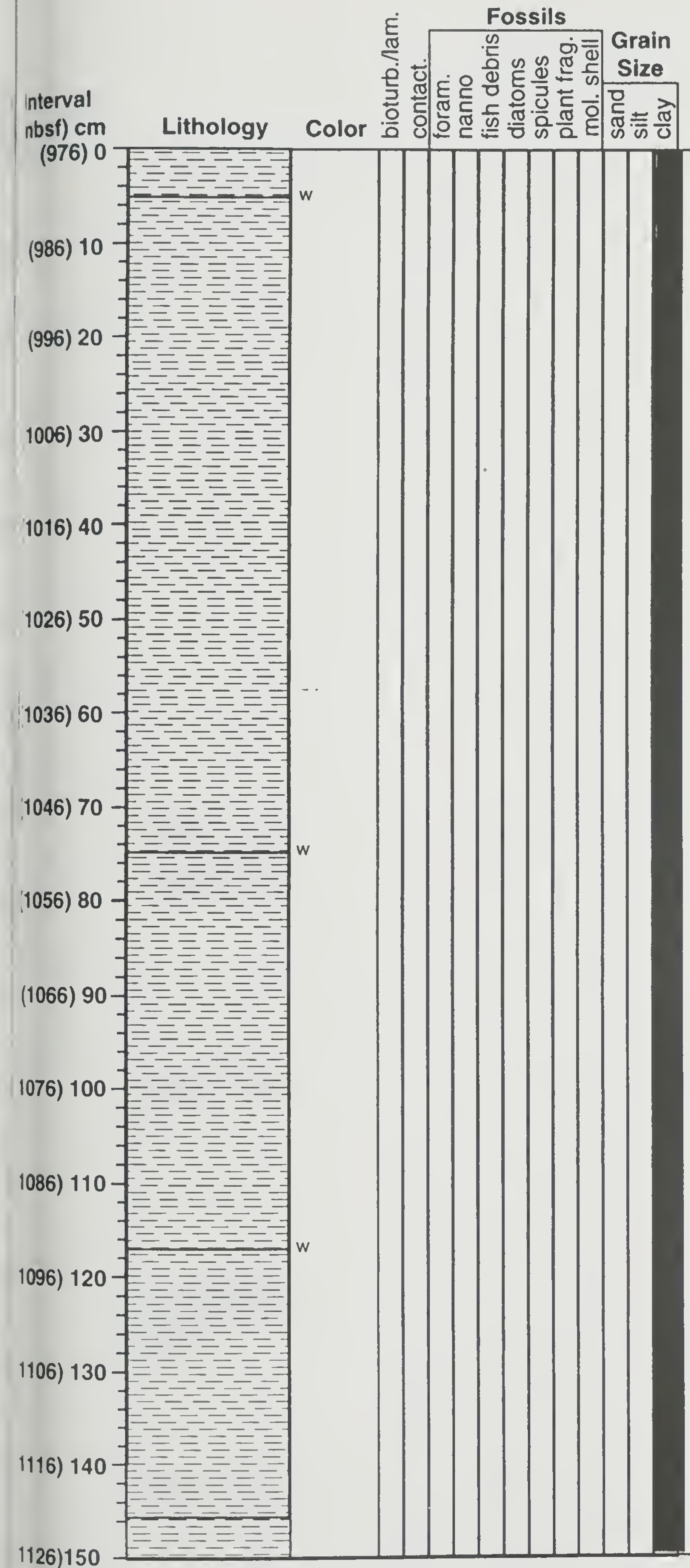
CLAY (organic-rich):
Basic stratigraphy is cm-scale interlayering of light and dark bands, but banding has become very diffuse. Below 28 cm, banding is distinguished by laminae of white, nannofossil ooze. The basic colors are:
light: (background) ol. gray (5Y4/1) ☐
dark: brownish black (5YR2/1) bands of multi-laminae ■ and individual laminae —

— w = lamina of nannofossil ooze

150 cm = bottom of section 4 (976 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC14 Sect.: 3 (976-1126 cmbsf) Lat.: 25 12.07 N Long.: 112 43.0 W
Water Depth: 540 m



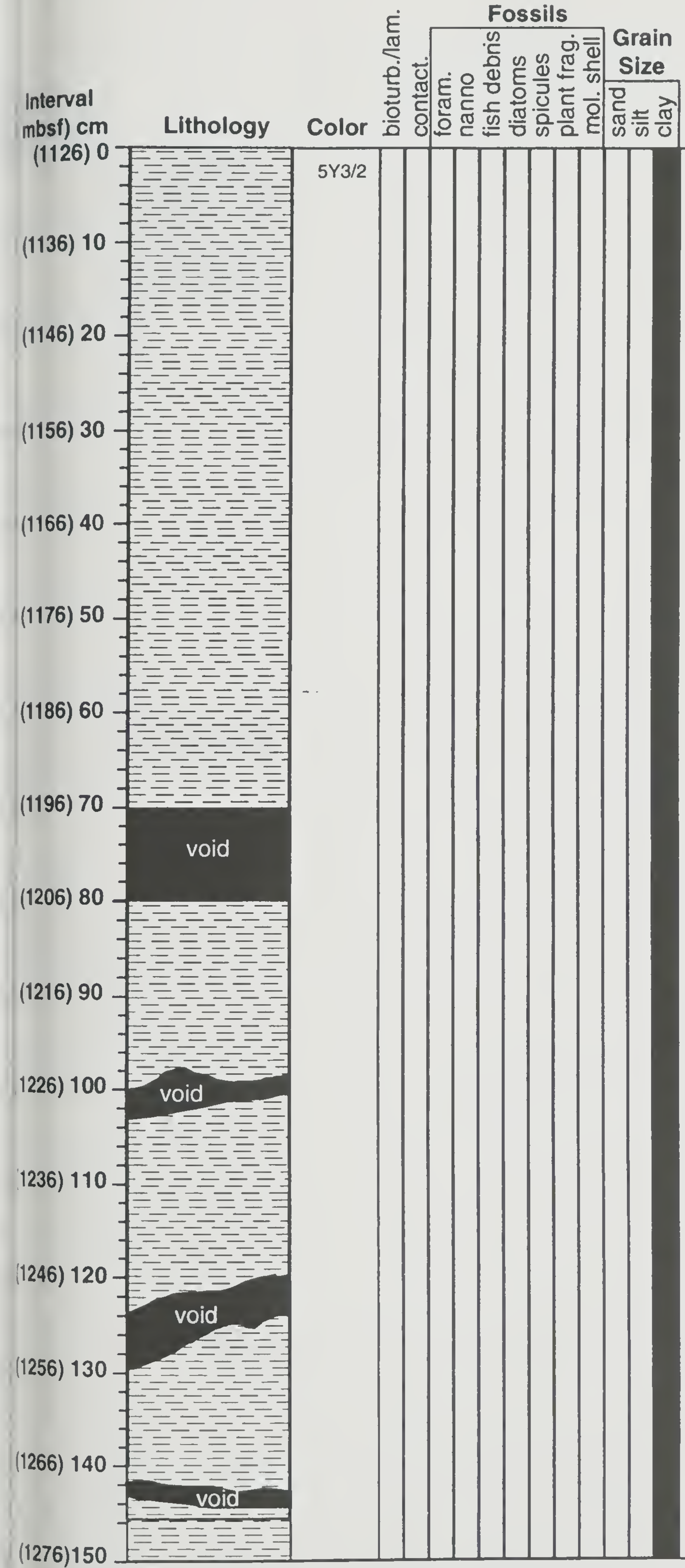
Remarks

CLAY (organic-rich):
ol. gray (5Y4/1); diffuse banding 0-50 cm, homogen. below;
gas expansion cracks 120-150 cm
— w = lamina of nannofossil ooze

150 cm = bottom of section 3 (1226 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: PC14 Sect.: 2 (1126-1276 cmbsf) Lat.: 25 12.07 N Long.: 112 43.0 W
Water Depth: 540 m



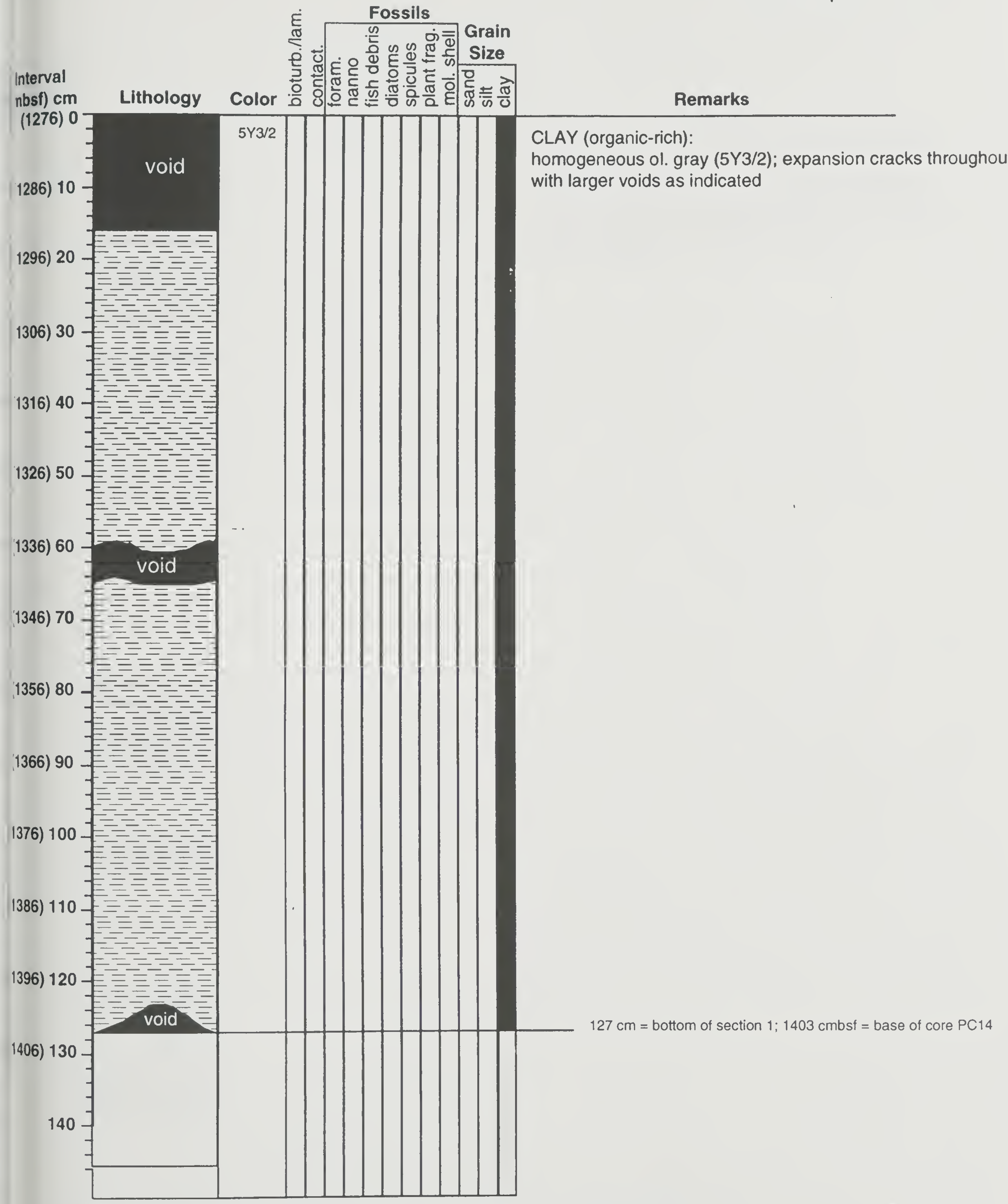
Remarks

CLAY (organic-rich):
homogeneous ol. gray (5Y3/2); expansion cracks 30-150 cm with larger voids as indicated

150 cm = bottom of section 2 (1276 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: PC14 Sect.: 1 (1276-1403 cmbsf) Lat.: 25 12.07 N Long.: 112 43.0 W
Water Depth: 540 m



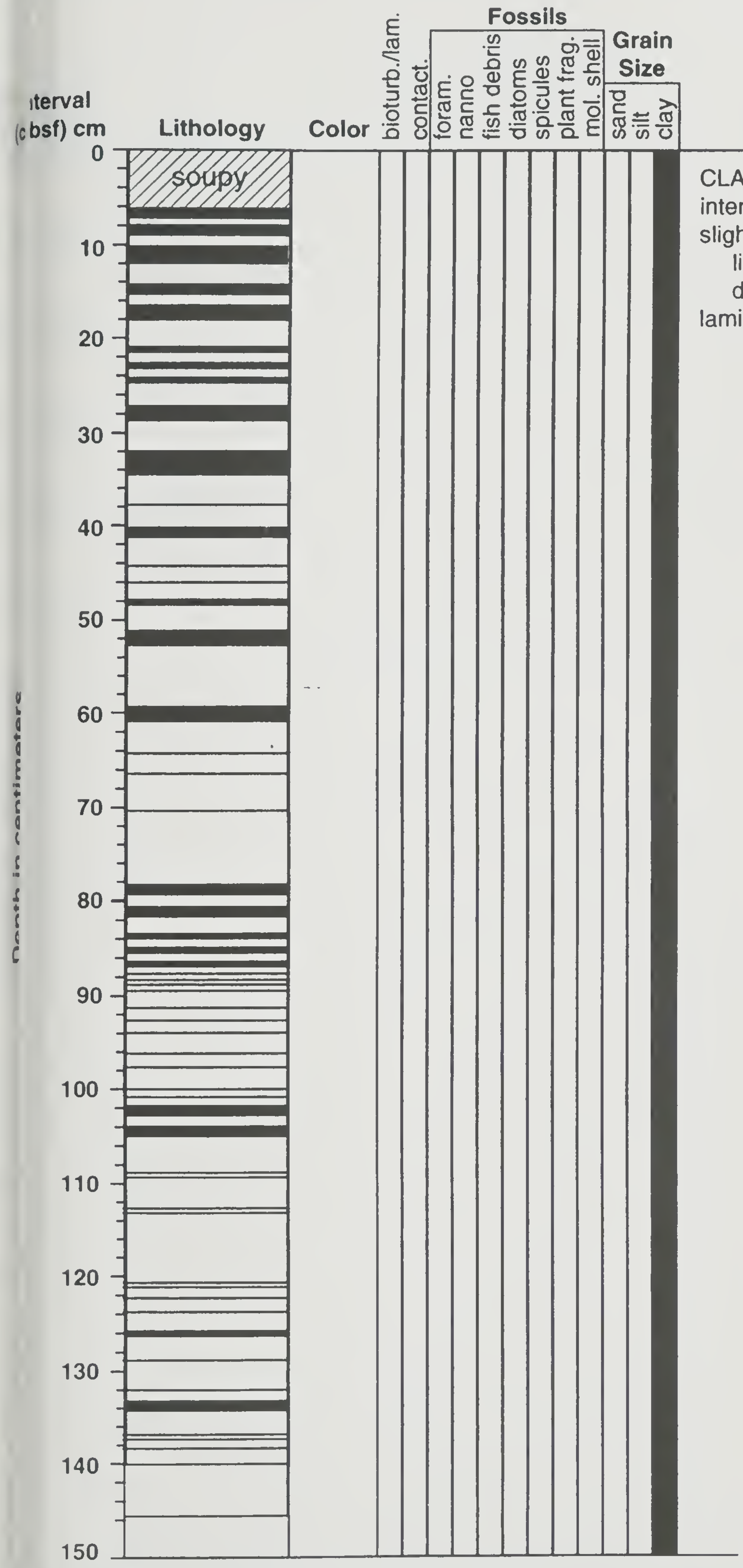
CLAY (organic-rich):
homogeneous ol. gray (5Y3/2); expansion cracks throughout with larger voids as indicated

127 cm = bottom of section 1; 1403 cmbsf = base of core PC14

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: TC14 Sect.: 2 (0-150 cmbsf) Lat.: 23 12.07 N Long.: 111 43.0 W

Water Depth: 540 m



Remarks

CLAY (organic-rich): basic stratigraphy is cm-scale interlayering of light and dark bands. There are some slight variations in color, but the basic colors are:

light: (background) dark yel. brown (10YR4/2) ▭

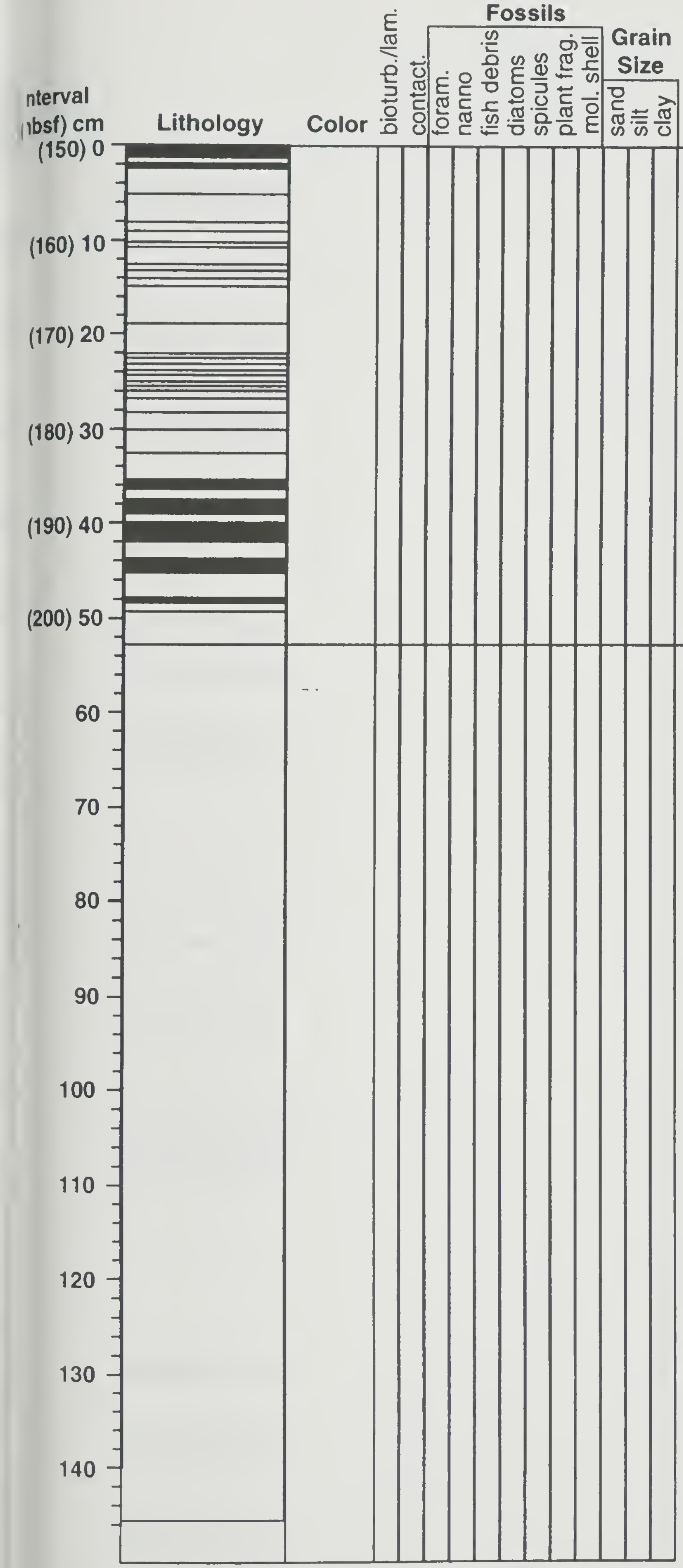
dark: brownish black (5YR2/1) bands of multi-laminae ■ and individual laminae ——

150 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: TC14 Sect.: 1 (150-203 cmbsf) Lat.: 23 12.07 N Long.: 111 43.0 W
Water Depth: 540 m



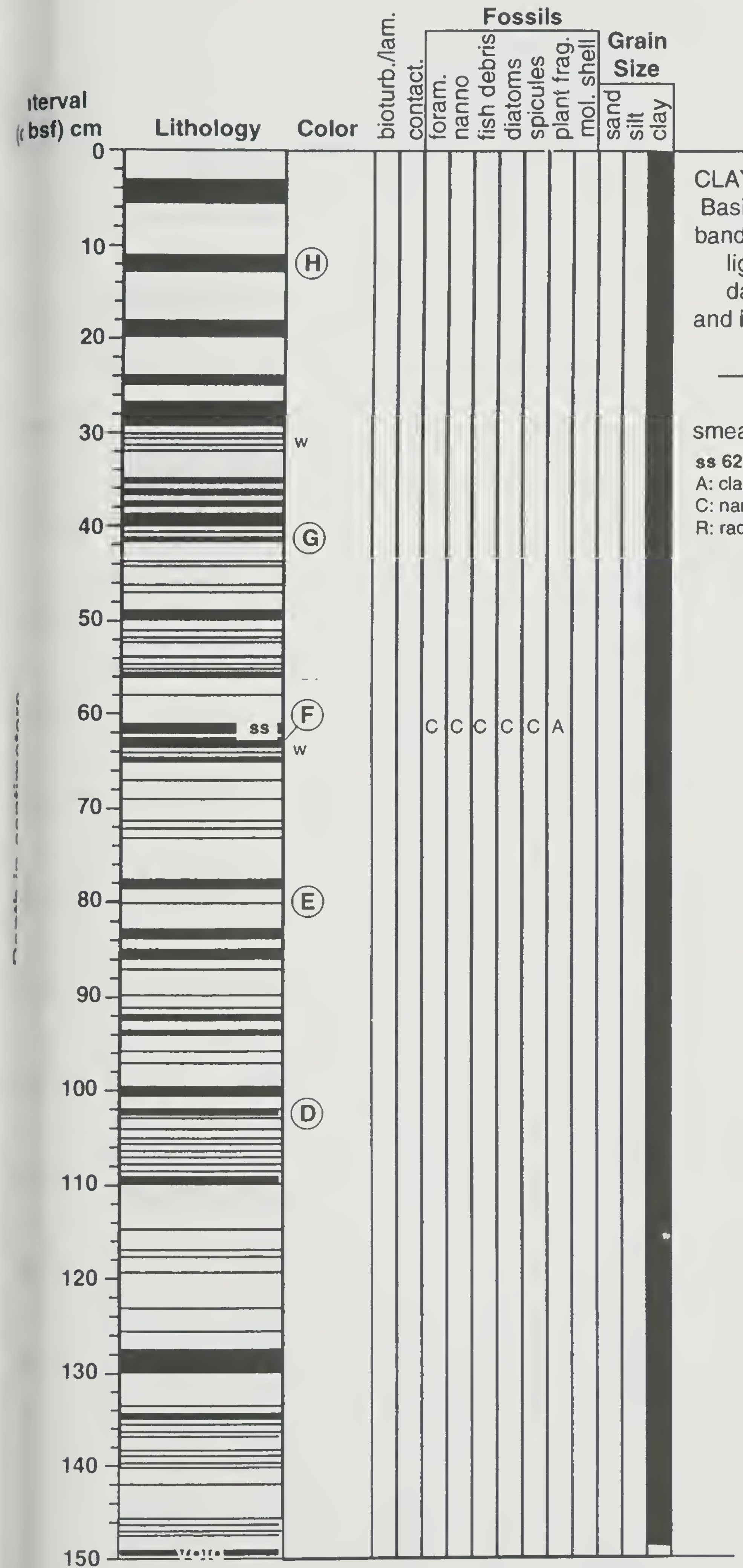
Remarks

CLAY (organic-rich): basic stratigraphy is cm-scale interlayering of light and dark bands. There are some slight variations in color, but the basic colors are:
light: (background) dark yel. brown (10YR4/2) ☐
dark: brownish black (5YR2/1) bands of multi-laminae ■ and individual laminae ——

53 cm = bottom of section 1; 203 cmbsf = base of core TC14

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC15 Sect.: 10 (0-150 cmbsf) Lat.: 25 11.08 N Long.: 112 44.22 W
Water Depth: 542 m



Remarks

CLAY (organic-rich; nanno-bearing) :
Basic stratigraphy is cm-scale interlayering of light and dark bands. The basic colors are:
light: (background) dusky yel.. brown (10YR2/2) ☐
dark: br. black (5YR2/1) bands of multi-laminae ■
and individual laminae —

— w = white lamina of nannofossil ooze

smear slides

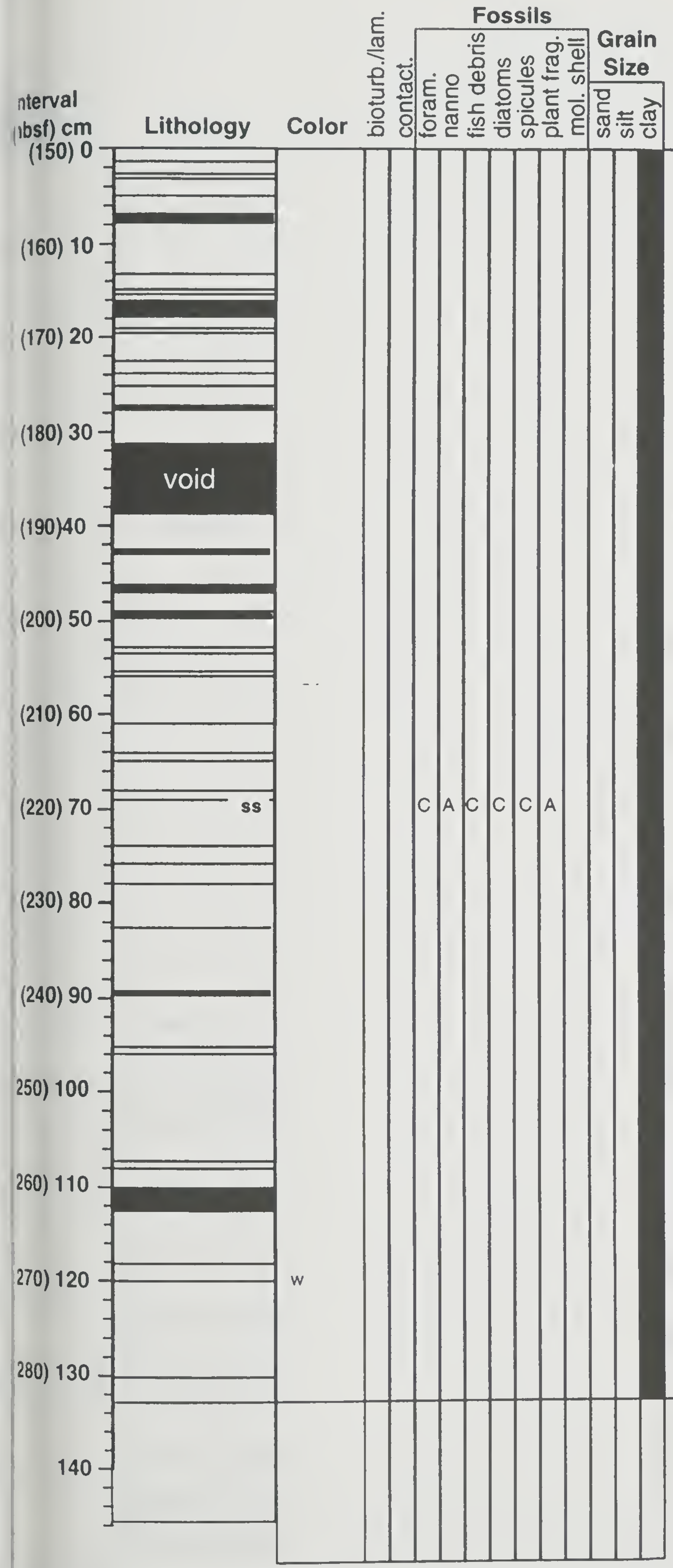
ss 62 cm (dark)
A: clay; organic matter
C: nannos; forams; diatoms ; pyrite; fish debris; sponge spic.
R: rads

150 cm = bottom of section 10

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC15 Sect.: 9 (150-283 cmbsf) Lat.: 25 11.08 N Long.: 112 44.22 W

Water Depth: 542 m



Remarks

CLAY (organic-rich; nanno-bearing) :
Basic stratigraphy is cm-scale interlayering of light and dark bands. The basic colors are:
light: (background) dark yel.. brown (10YR4/2) ☐
dark: br. black (5YR2/1) bands of multi-laminae ■
and individual laminae ——

—— w = white lamina of nannofossil ooze

extreme gas expansion cracks throughout

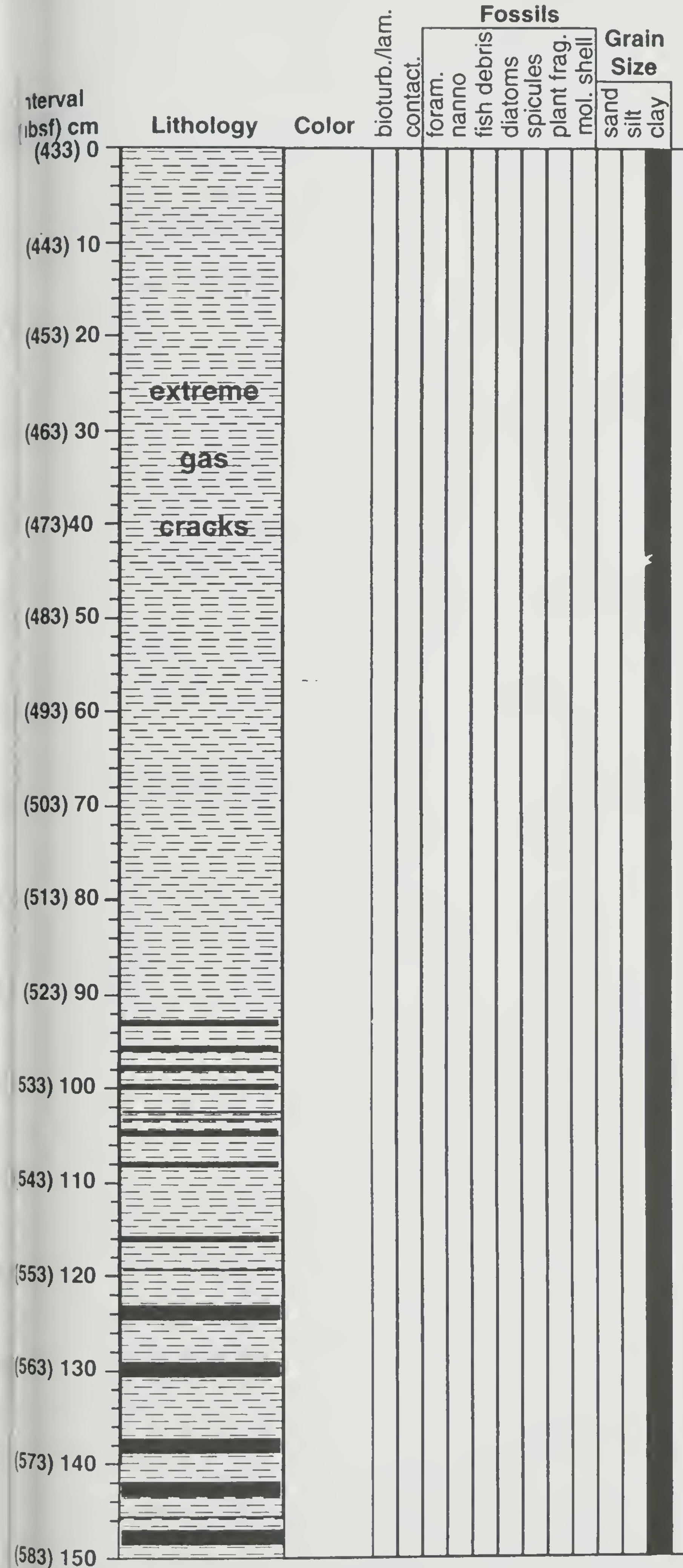
smear slides

ss 70 cm (background dominant lithology)
A: clay; organic matter; nannos
C: forams; diatoms ; pyrite; fish debris; sponge spic.
R: rads

132 cm = bottom of section 9 (283 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

XMZ01MV Core: PC15 Sect.: 7 (433-584 cmbsf) Lat.: 25 11.08 N Long.: 112 44.22 W
Water Depth: 542 m



CLAY (organic-rich; nanno-bearing) :
Basic stratigraphy is cm-scale interlayering of light and dark bands. The basic colors are:
light: (background) dark yel.. brown (10YR4/2) ▤
dark: br. black (5YR2/1) bands of multi-laminae ■
and individual laminae —

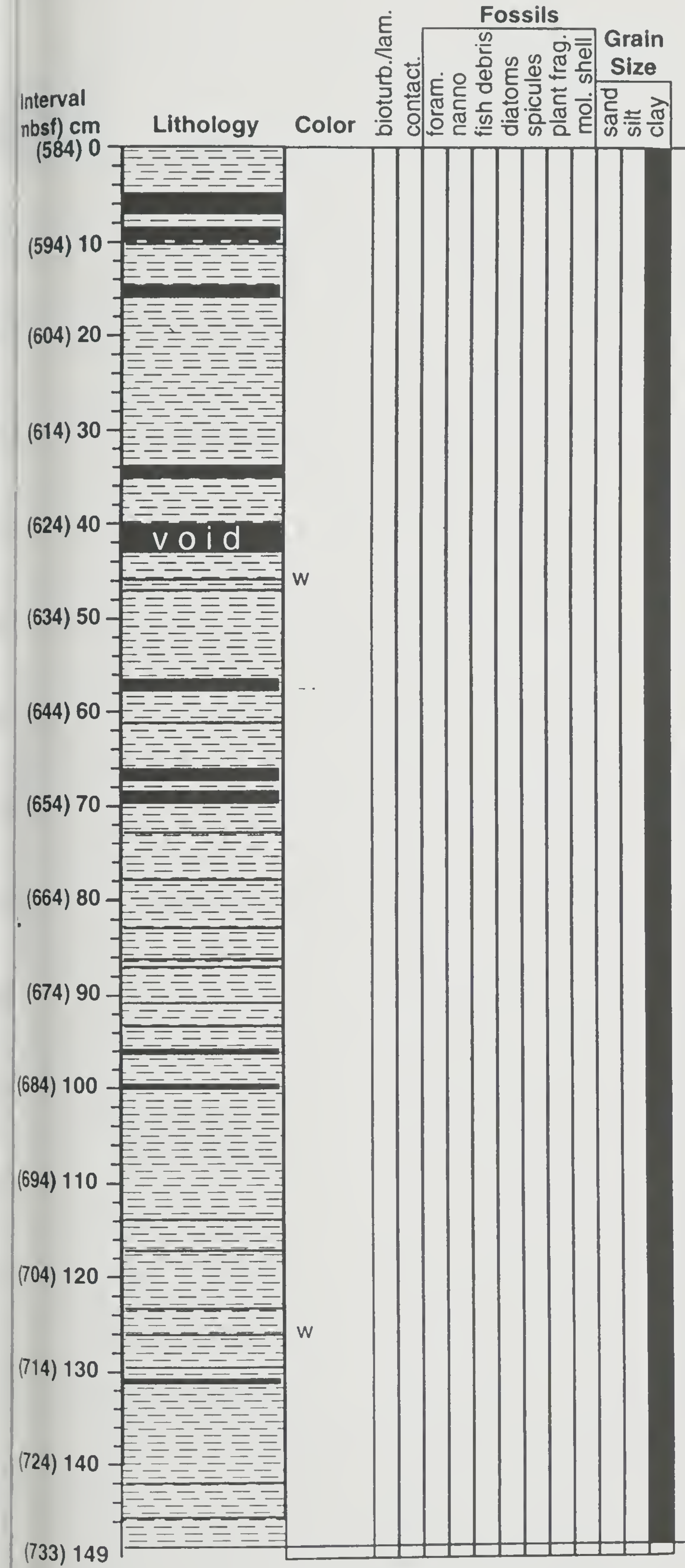
extreme gas expansion cracks from 0-94 cm

extruded between S. 6 and S. 7
(add to bottom of S. 7)

150 cm = bottom of section 7 (583 + 1 cm = cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC15 Sect.: 6 (584-733 cmbsf) Lat.: 25 11.08 N Long.: 112 44.22 W
Water Depth: 542 m



Remarks

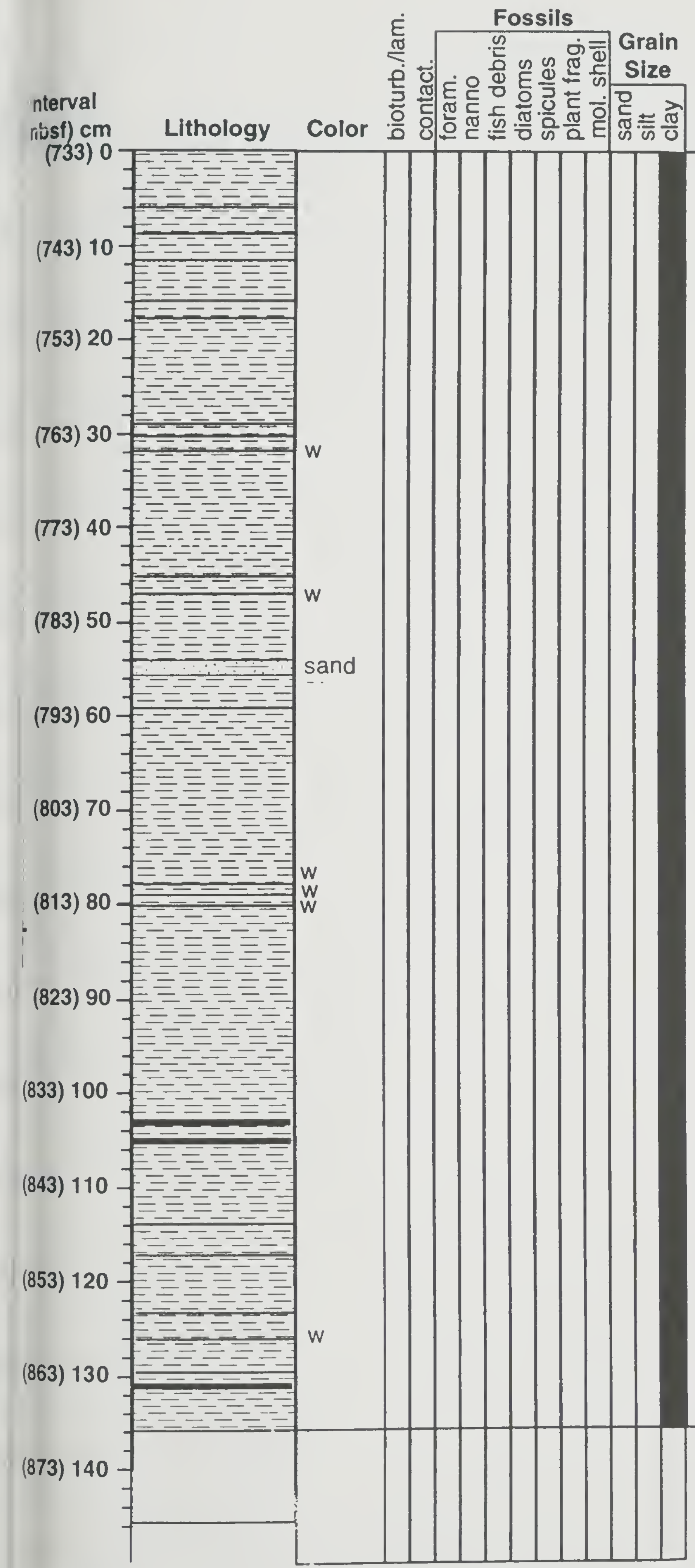
CLAY (organic-rich; nanno-bearing) :
Basic stratigraphy is cm-scale interlayering of light and dark bands. The basic colors are:
light: (background) dark yel.. brown (10YR4/2) ▤
dark: br. black (5YR2/1) bands of multi-laminae ■
and individual laminae —
w = white lamina of nanno ooze

extreme gas expansion cracks from 38 to 74 cm

149 cm = bottom of section 6 (733cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC15 Sect.: 5 (733-869 cmbsf) Lat.: 25 11.08 N Long.: 112 44.22 W
Water Depth: 542 m



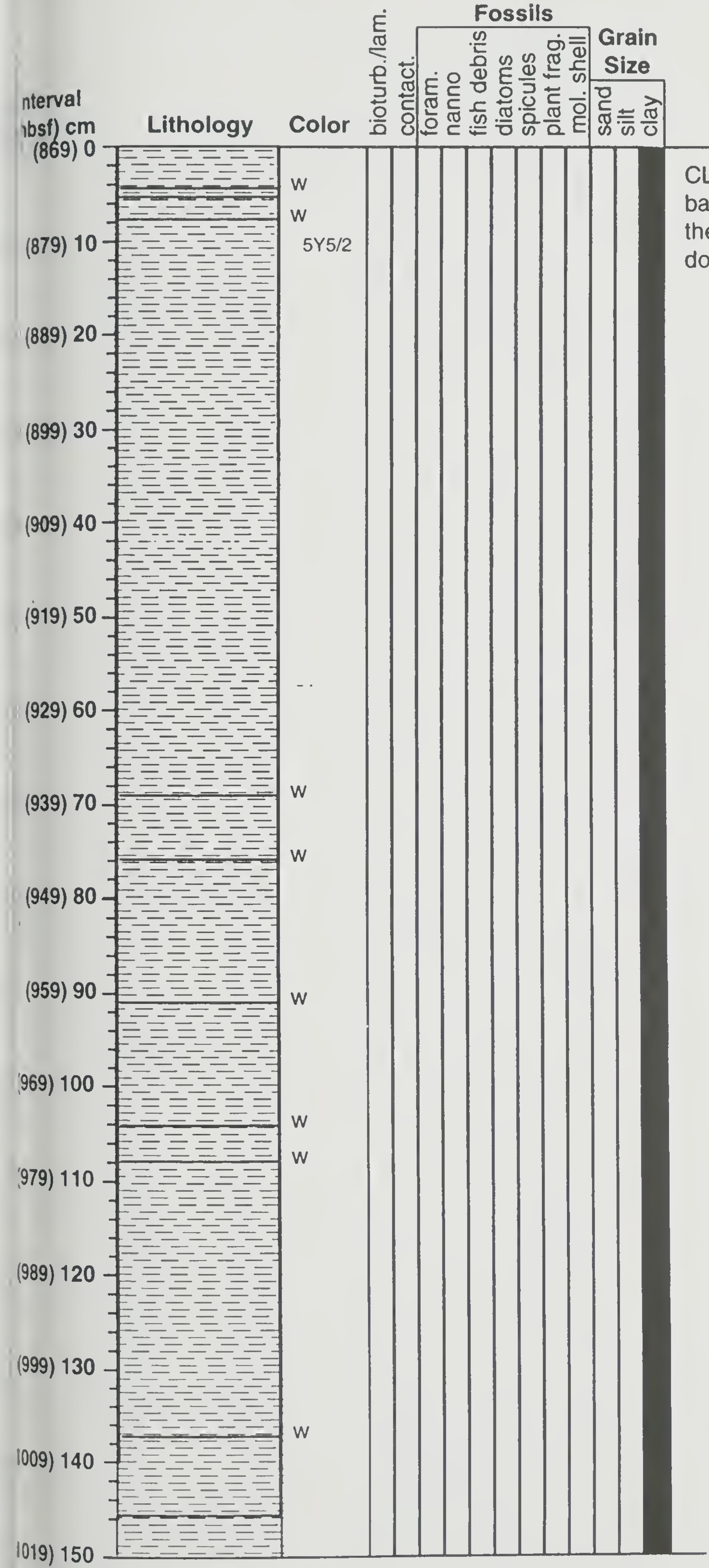
Remarks

CLAY (organic-rich; nanno-bearing) :
Basic stratigraphy is cm-scale interlayering of light and dark bands. The basic colors are:
light: (background) mod. ol. brown. brown (10YR4/4) to grayish olive (10Y4/2) ▤
dark: dark yel. brown (10YR4/2) bands of multi-laminae ■ and individual laminae —
— w = white laminae of nanno ooze

136 cm = bottom of section 5 (869 cmbsf)

Fossils: X=Present C=Common A=Abundant B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: PC15 Sect.: 4 (869-1019 cmbsf) Lat.: 25 11.08 N Long.: 112 44.22 W
Water Depth: 542 m



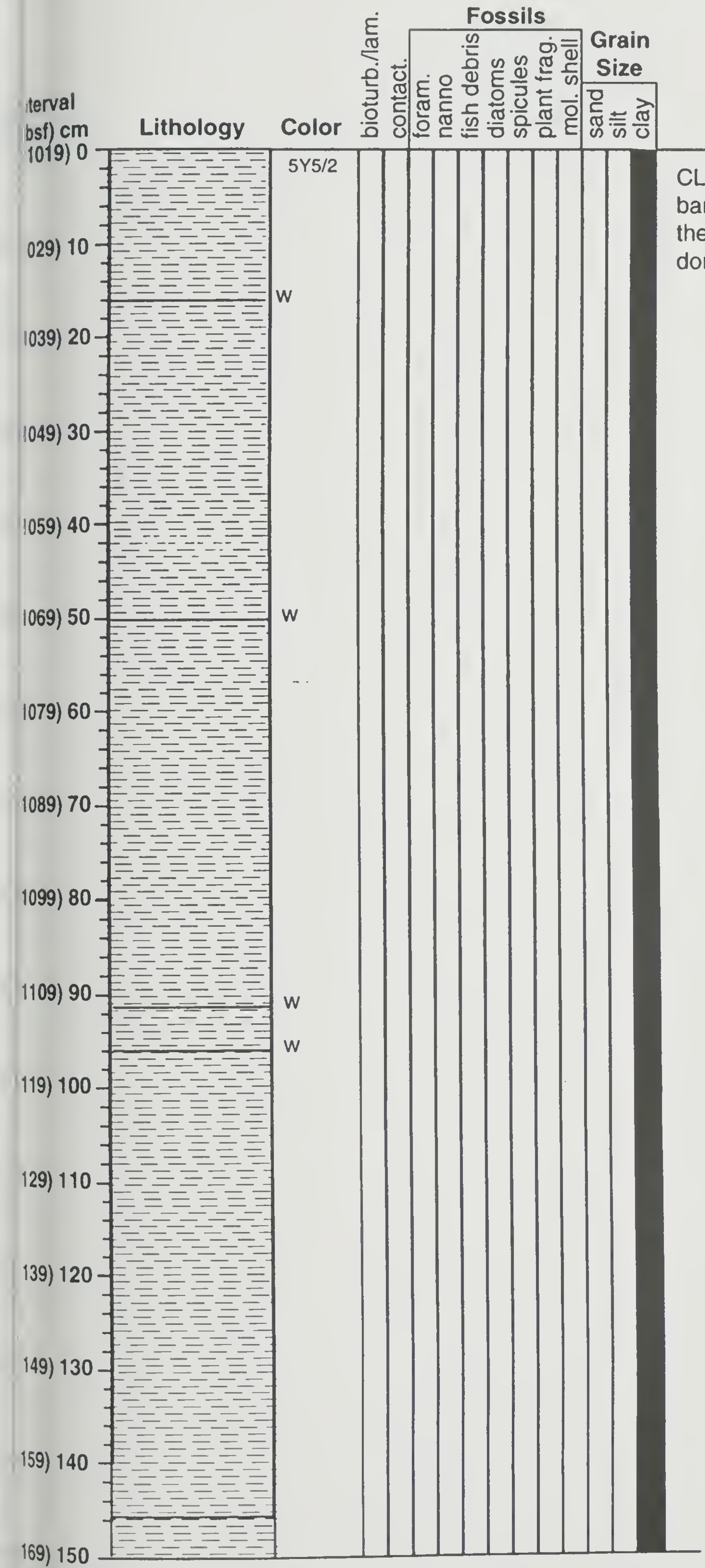
Remarks

CLAY (organic-rich; nanno-bearing) :
banding is very diffuse and obscure, delineated by the white nanno ooze laminae = —— w
dominant color is lt. ol. gray (5Y5/2)

150 cm = bottom of section 4 (1019 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

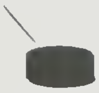
XMZ01MV Core: PC15 Sect.: 3 (1019-1171 cmbsf) Lat.: 25 11.08 N Long.: 112 44.22 W
Water Depth: 542 m



Remarks

CLAY (organic-rich; nanno-bearing) :
banding is very diffuse and obscure, delineated by the white nanno ooze laminae = —— w
dominant color is lt. ol. gray (5Y5/2)

extruded between S. 2 and S. 3
(add to bottom of S. 3)



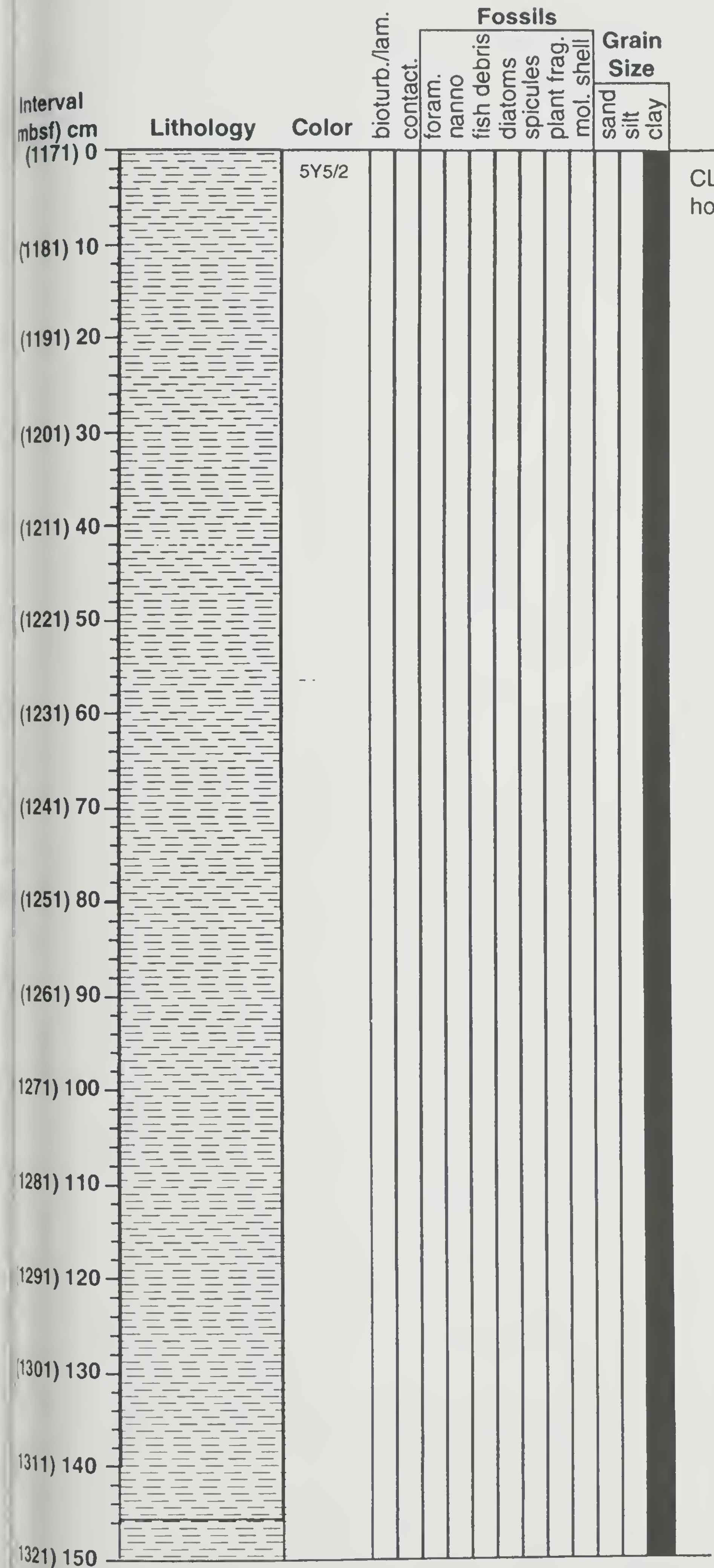
150 cm = bottom of section 3 (1169 + 2 = 1171 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren
Contacts: S=Sharp G=gradational M=mottled

ss=smear slide

0XMZ01MV Core: PC15 Sect.: 2 (1171-1321 cmbsf) Lat.: 25 11.08 N Long.: 112 44.22 W

Water Depth: 542 m



Remarks

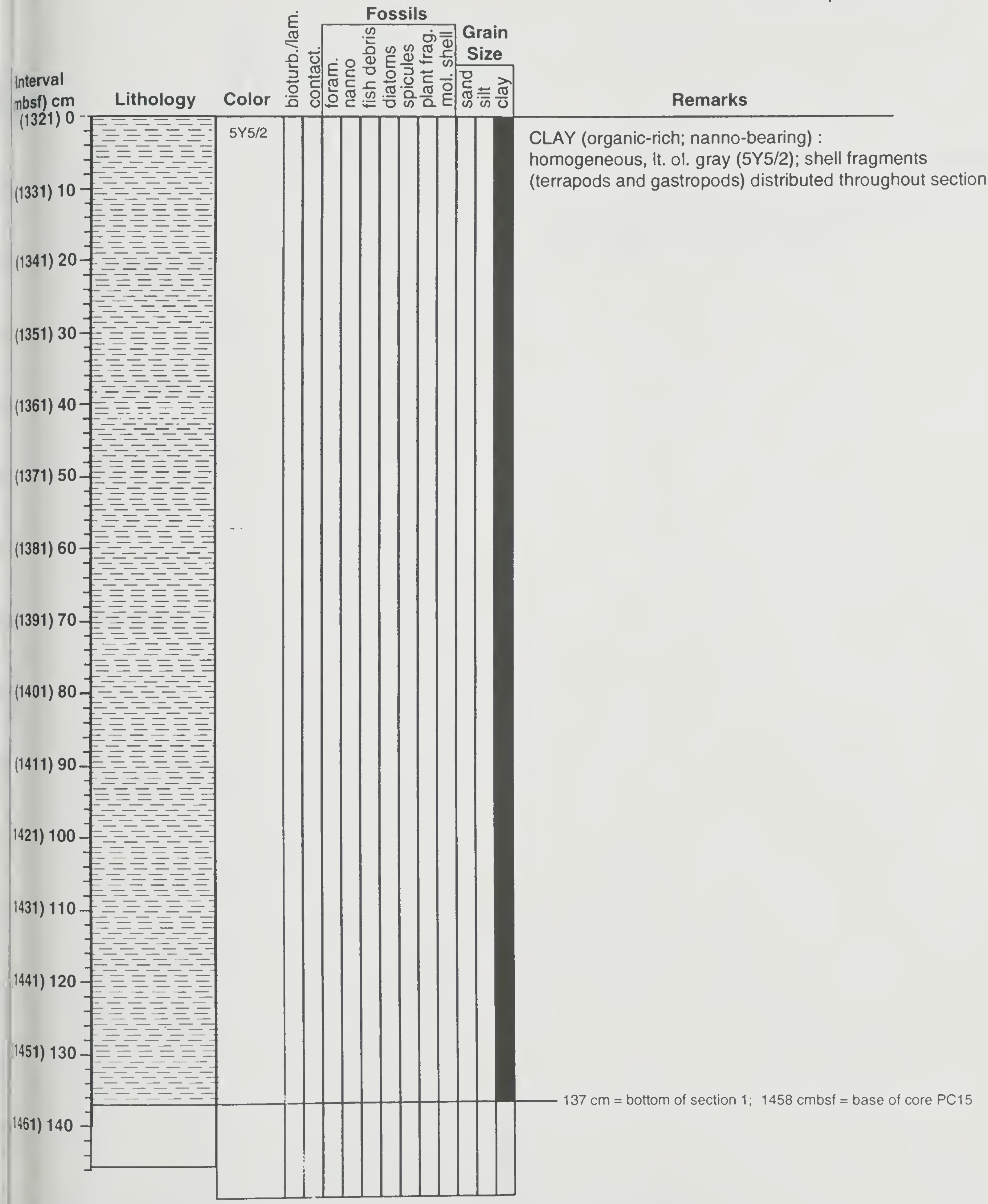
CLAY (organic-rich; nanno-bearing) : homogeneous, lt. ol. gray (5Y5/2); shell fragments 80-90 cm

150 cm = bottom of section 2 (1321 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV   Core: PC15   Sect.: 1 (1321-1458 cmbsf)   Lat.: 25 11.08 N Long.: 112 44.22 W
Water Depth: 542 m

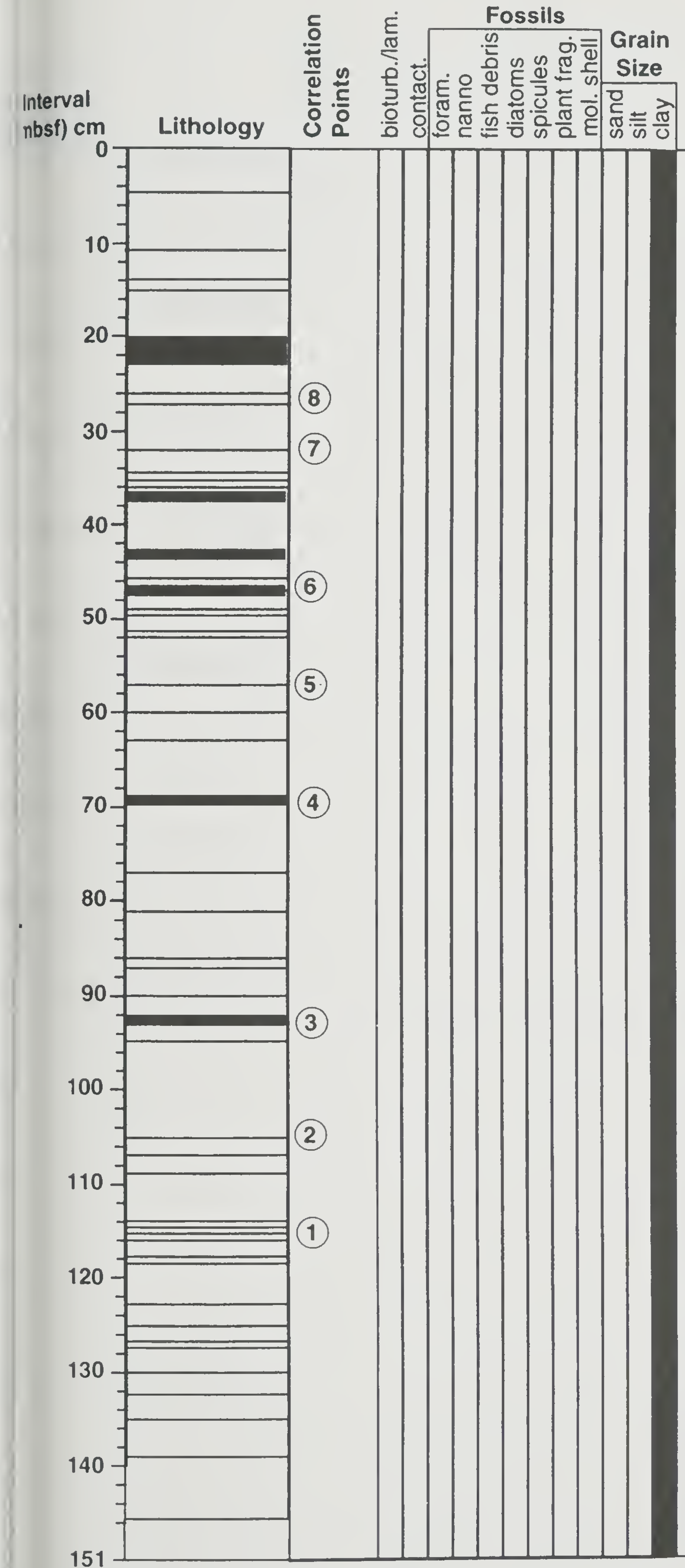


CLAY (organic-rich; nanno-bearing) : homogeneous, lt. ol. gray (5Y5/2); shell fragments (terrapods and gastropods) distributed throughout section

137 cm = bottom of section 1; 1458 cmbsf = base of core PC15

Fossils: A=Abundant C=Common R=Rare B=Barren   ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: TC15 Sect.: 2 (0-151 cmbsf) Lat.: 25 11.08 N Long.: 112 44.22 W
Water Depth: 542 m



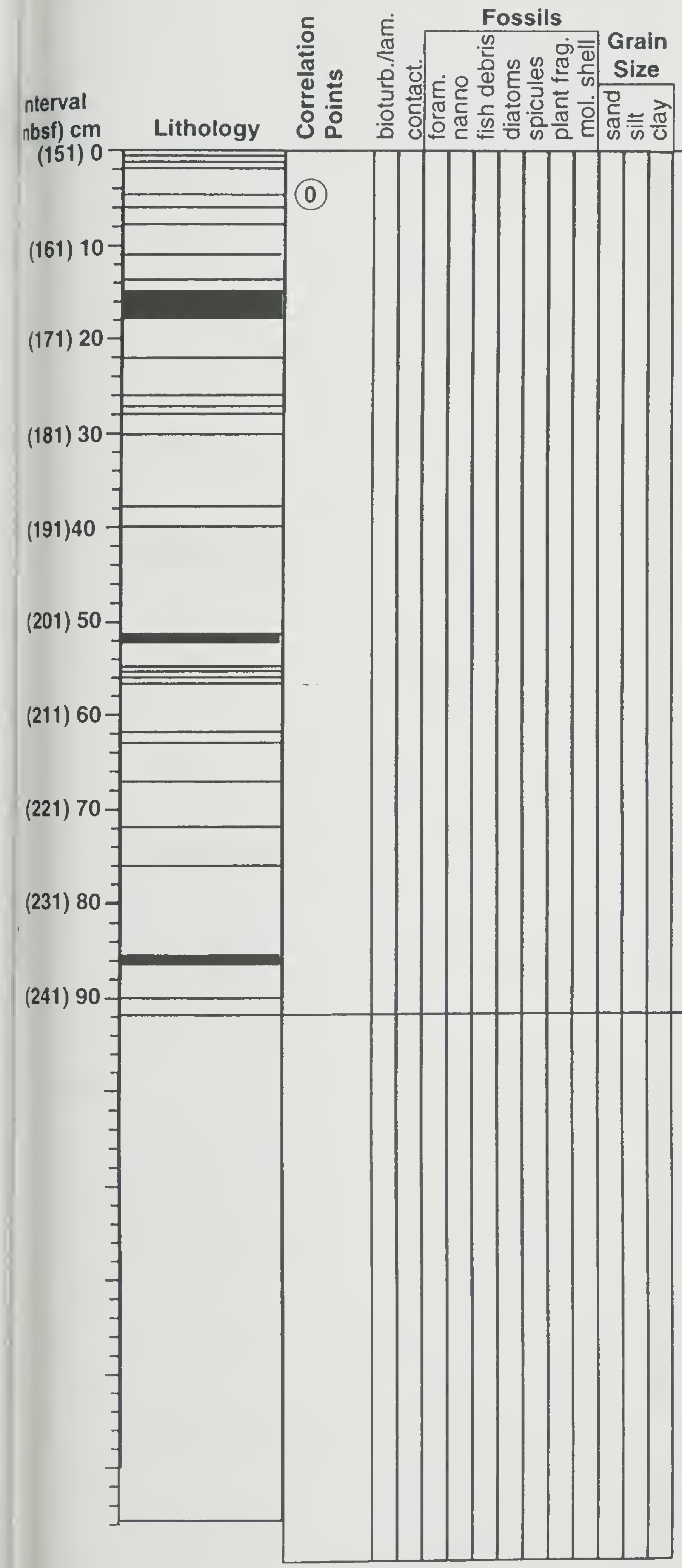
Remarks

CLAY (organic-rich) :
Basic stratigraphy is cm-scale interlayering of light and dark bands. The basic colors are:
light: (background) dark yel.. brown (10YR4/2) ☐
dark: browish black (5YR2/1) bands of multi -laminae ■ and individual laminae —

151 cm = bottom of section 2

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: TC15 Sect.: 1 (151-243 cmbsf) Lat.: 25 11.08 N Long.: 112 44.22 W
Water Depth: 542 m



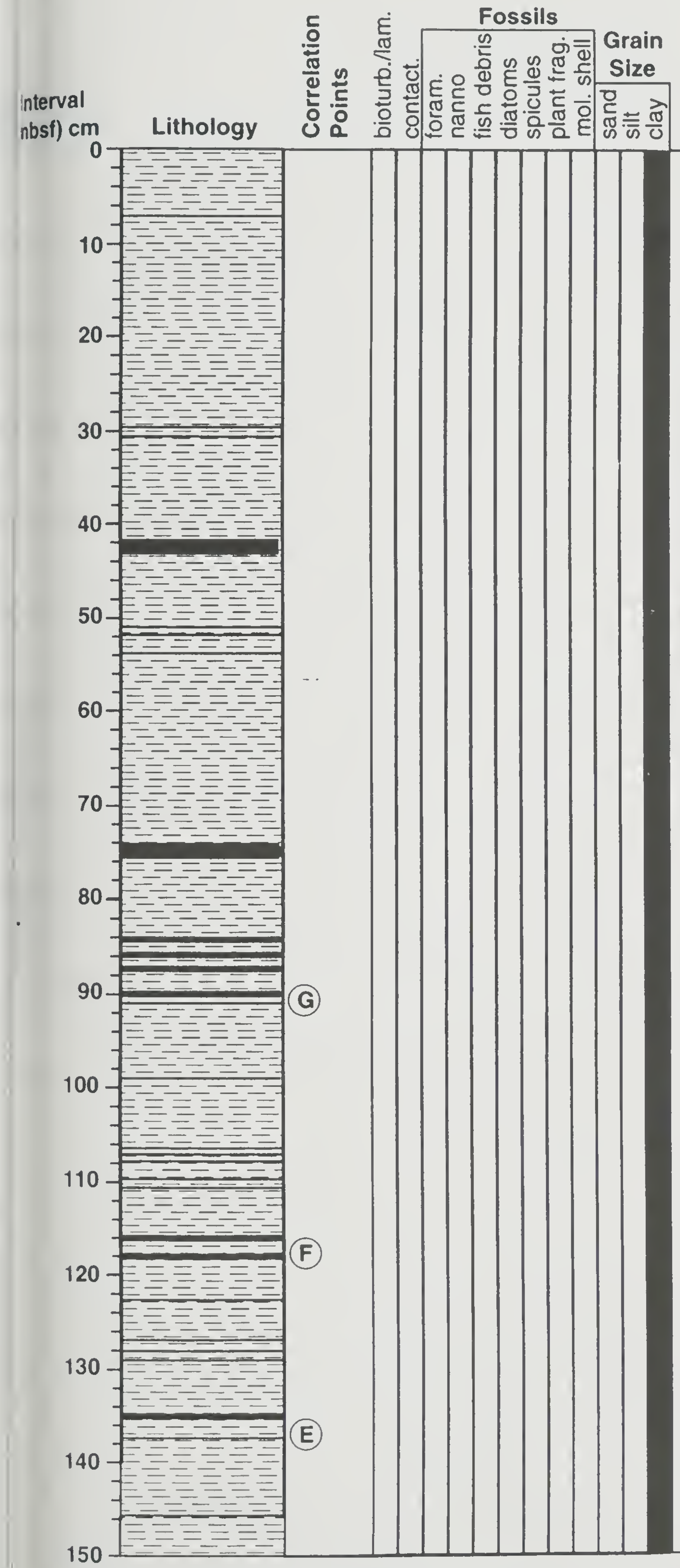
Remarks

CLAY (organic-rich) :
Basic stratigraphy is cm-scale interlayering of light and dark bands. The basic colors are:
light: (background) dark yel.. brown (10YR4/2) ☐
dark: browish black (5YR2/1) bands of multi -laminae ■ and individual laminae —

92 cm = bottom of section 1; 243 cmbsf = base of core TC15

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC16 Sect.: 10 (0-150 cmbsf) Lat.: 25 12.09 N Long.: 112 43.0 W
Water Depth: 542 m



Remarks

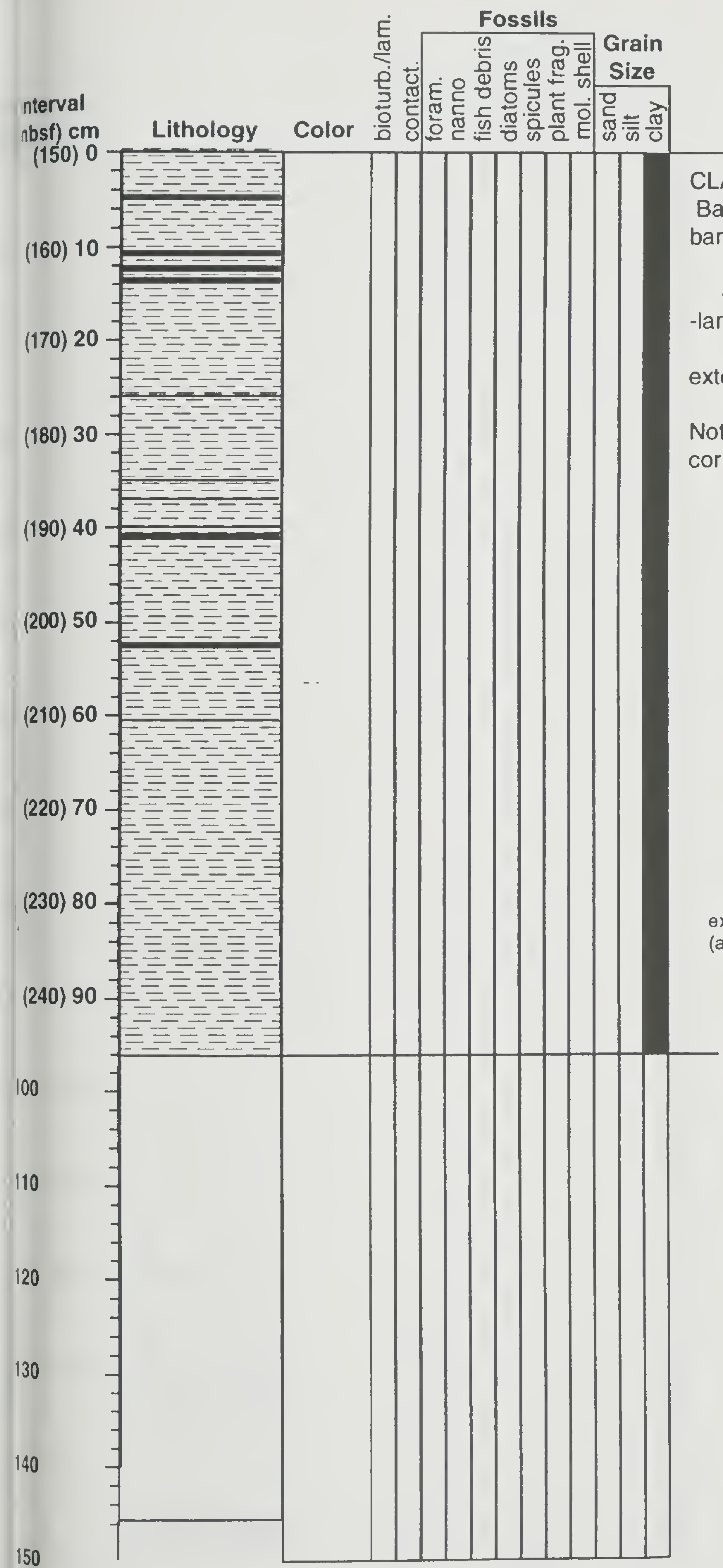
CLAY (organic-rich) :
Basic stratigraphy is cm-scale interlayering of light and dark bands. The basic colors are:
light: (background) dark yel.. brown (10YR4/2) ▭
dark: browish black (5YR2/1) bands of multi -laminae ■ and individual laminae ——

Note: only most distinctive bands and laminae used for correlation are indicated

150 cm = bottom of section 10

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC16 Sect.: 9 (150-251 cmbsf) Lat.: 25 12.09 N Long.: 112 43.0 W
Water Depth: 542 m



CLAY (organic-rich) :
Basic stratigraphy is cm-scale interlayering of light and dark bands. The basic colors are:
light: (background) dark yel.. brown (10YR4/2) ▤
dark: browish black (5YR2/1) bands of multi-laminae ■ and individual laminae —

extensive gas expansion cracks between 76 and 96 cm

Note: only most distinctive bands and laminae used for correlation are indicated

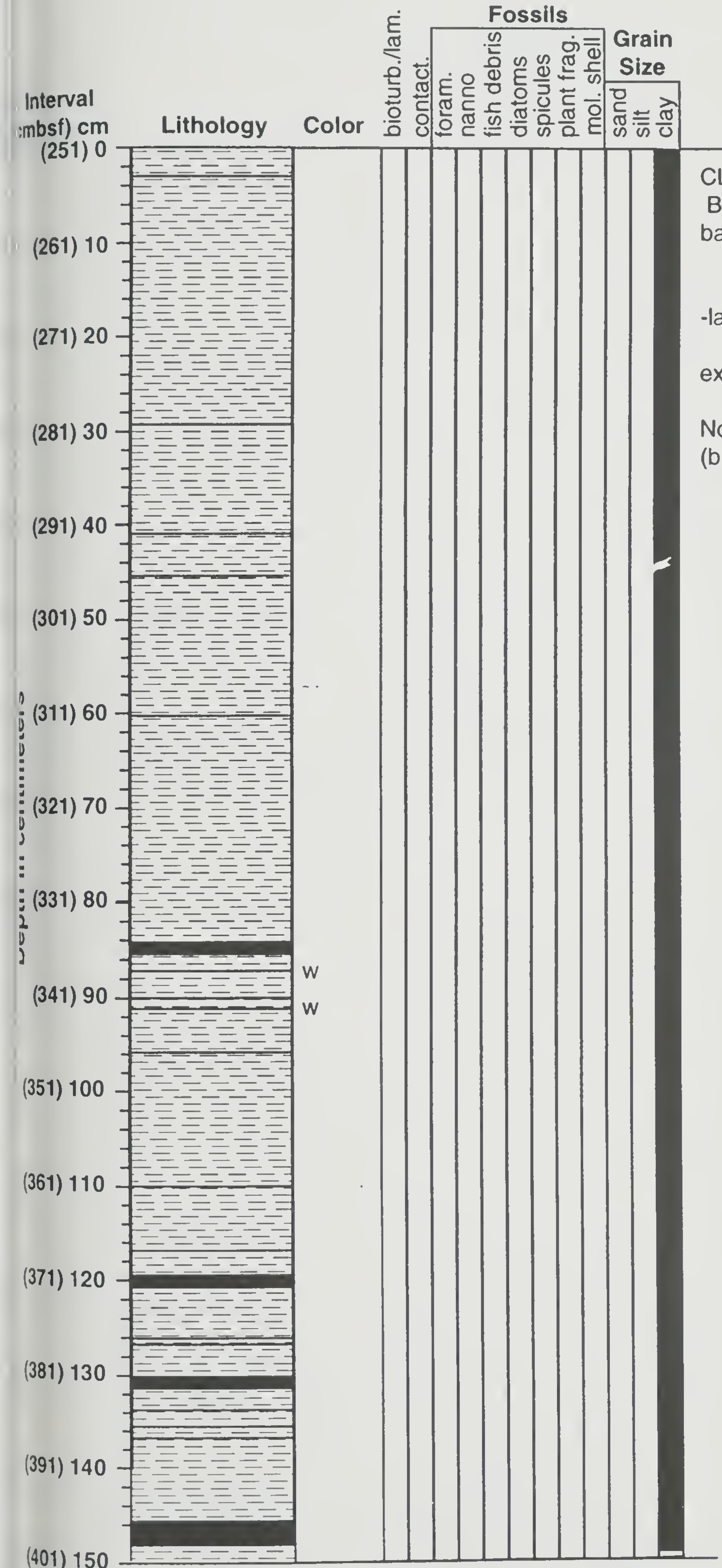
extruded between S. 8 and S. 9
(add to bottom of S. 9)

5 cm

96 cm = bottom of section 9
246 +5 = 251 cmbsf

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC16 Sect.: 8 (251-401 cmbsf) Lat.: 25 12.09 N Long.: 112 43.0 W
Water Depth: 542 m



Remarks

CLAY (organic-rich) :
Basic stratigraphy is cm-scale interlayering of light and dark bands. The basic colors are:
light: (background) dark yel.. brown (10YR4/2) ▤
dark: browish black (5YR2/1) bands of multi -laminae ■ and individual laminae —

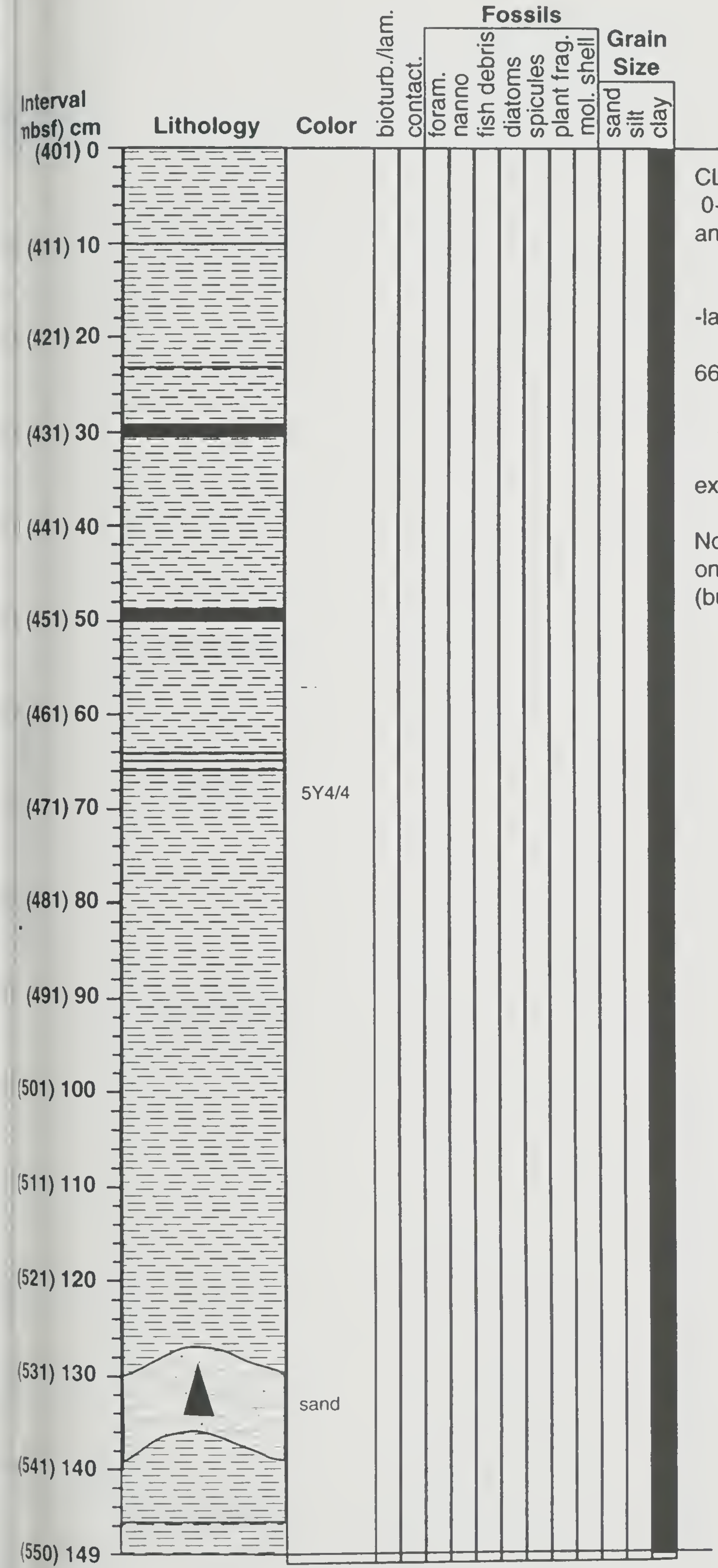
extensive gas expansion cracks throughout section

Note: only most distinctive bands and laminae are indicated (but many may be obscured by the gas cracks)

150 cm = bottom of section 8

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC16 Sect.: 7 (401-550 cmbsf) Lat.: 25 12.09 N Long.: 112 43.0 W
Water Depth: 542 m



Remarks

CLAY (organic-rich) :
0-66 cm: Basic stratigraphy is cm-scale interlayering of light and dark bands. The basic colors are:
light: (background) dark yel.. brown (10YR4/2) ▤
dark: browish black (5YR2/1) bands of multi -laminae ■ and individual laminae —

66-149 cm: homogeneous, mod. yel. brown (5Y4/4)

▨ sand, lt. ol. gray (10YR4/2)

extensive gas expansion cracks throughout section

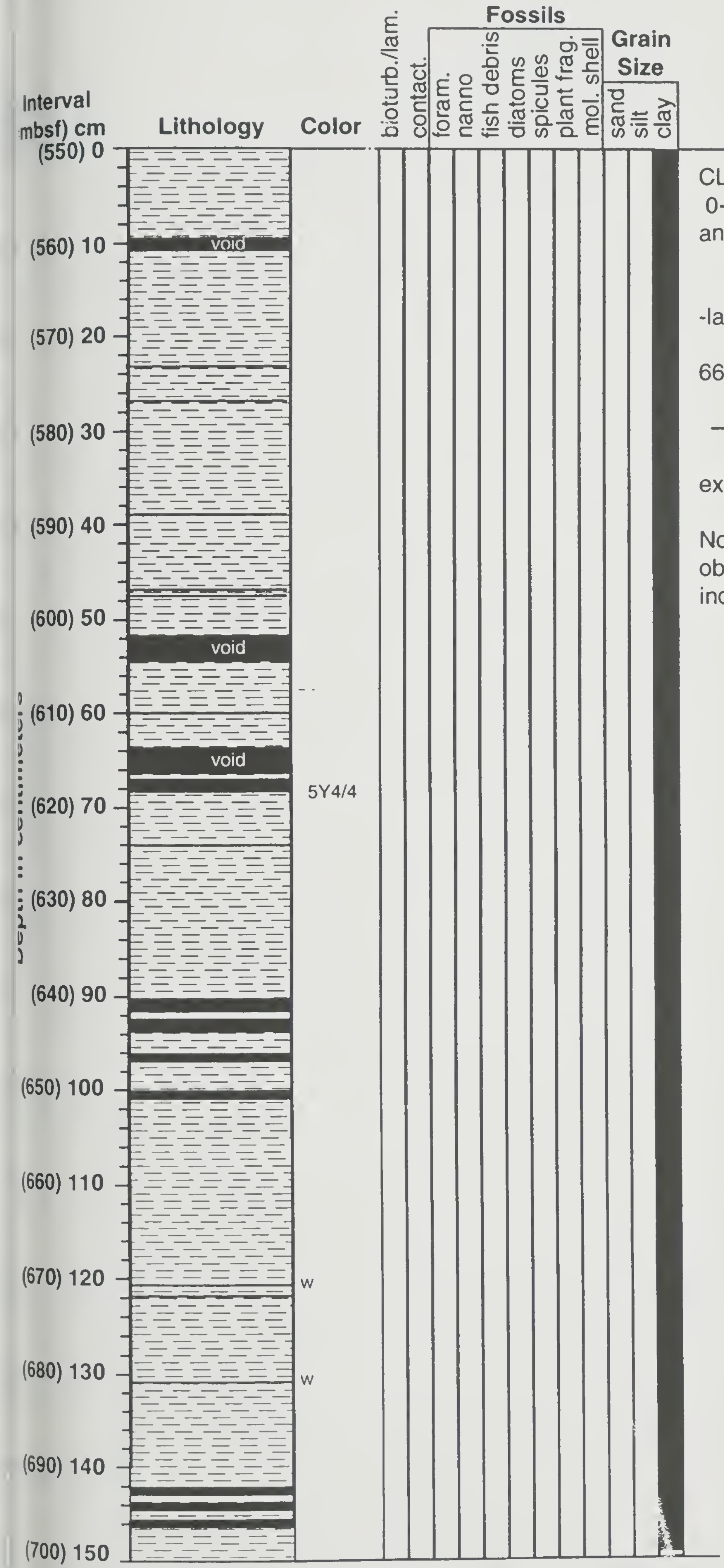
Note: banding and laminations becoming diffuse and obscur
only most distinctive bands and laminae are indicated
(but many may be obscured by the gas cracks)

149 cm = bottom of section 7

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC16 Sect.: 6 (550-700 cmbsf) Lat.: 25 12.09 N Long.: 112 43.0 W

Water Depth: 542 m



Remarks

CLAY (organic-rich) :

0-66 cm: Basic stratigraphy is cm-scale interlayering of light and dark bands. The basic colors are:

light: (background) dark yel.. brown (10YR4/2) ▤

dark: browish black (5YR2/1) bands of multi -laminae ■ and individual laminae

66-149 cm: homogeneous, mod. yel. brown (5Y4/4)

—w = white nanno ooze laminae

extensive gas expansion cracks 45-90 cm

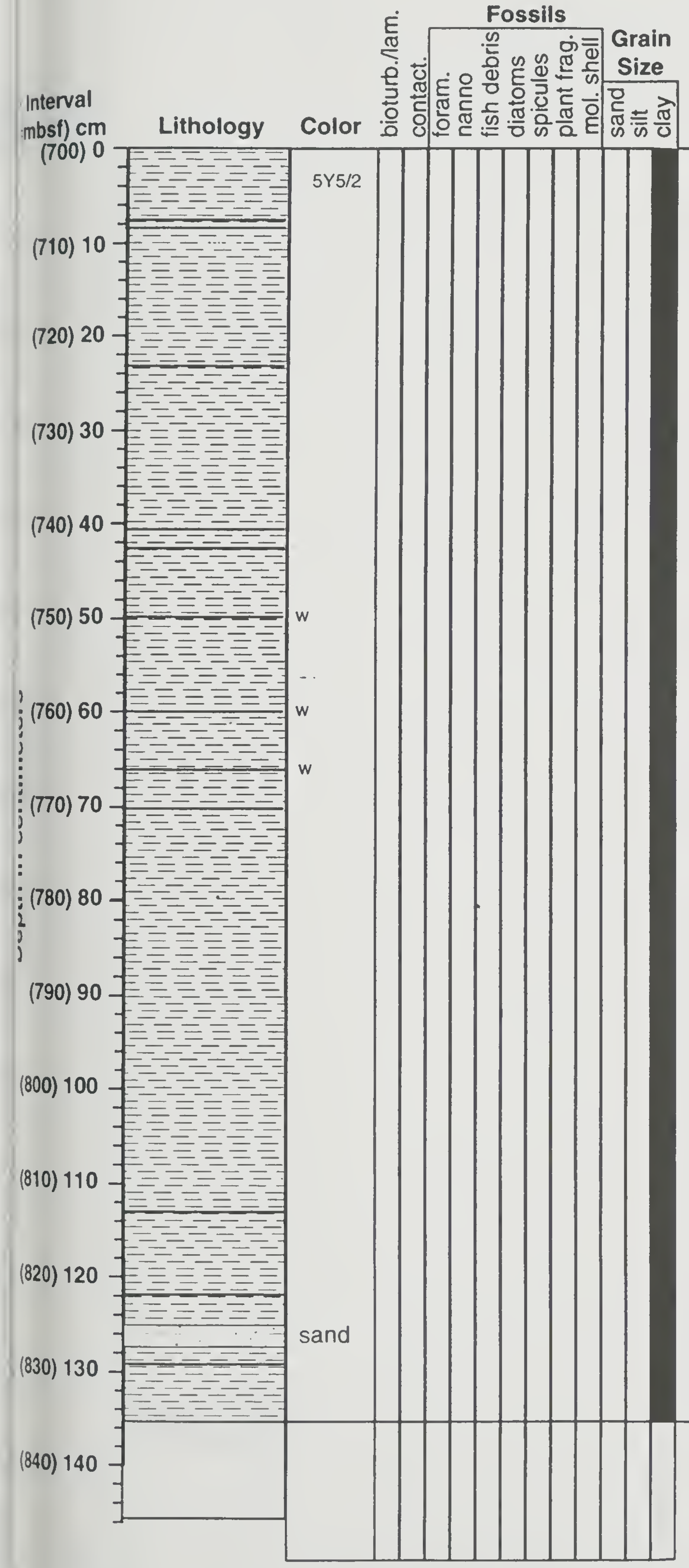
Note: banding and laminations becoming diffuse and obscure; only most distinctive bands and laminae are indicated (but many may be obscured by the gas cracks)

150 cm = bottom of section 6

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC16 Sect.: 5 (700-847 cmbsf) Lat.: 25 12.09 N Long.: 112 43.0 W
Water Depth: 542 m



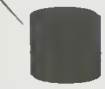
Remarks

CLAY (organic-rich) :
homogeneous, lt. ol. gray (5Y5/2)

— w = white nanno ooze laminae
— = darker laminae

Note: banding and laminations becoming diffuse and obscure
only most distinctive bands and laminae are indicated

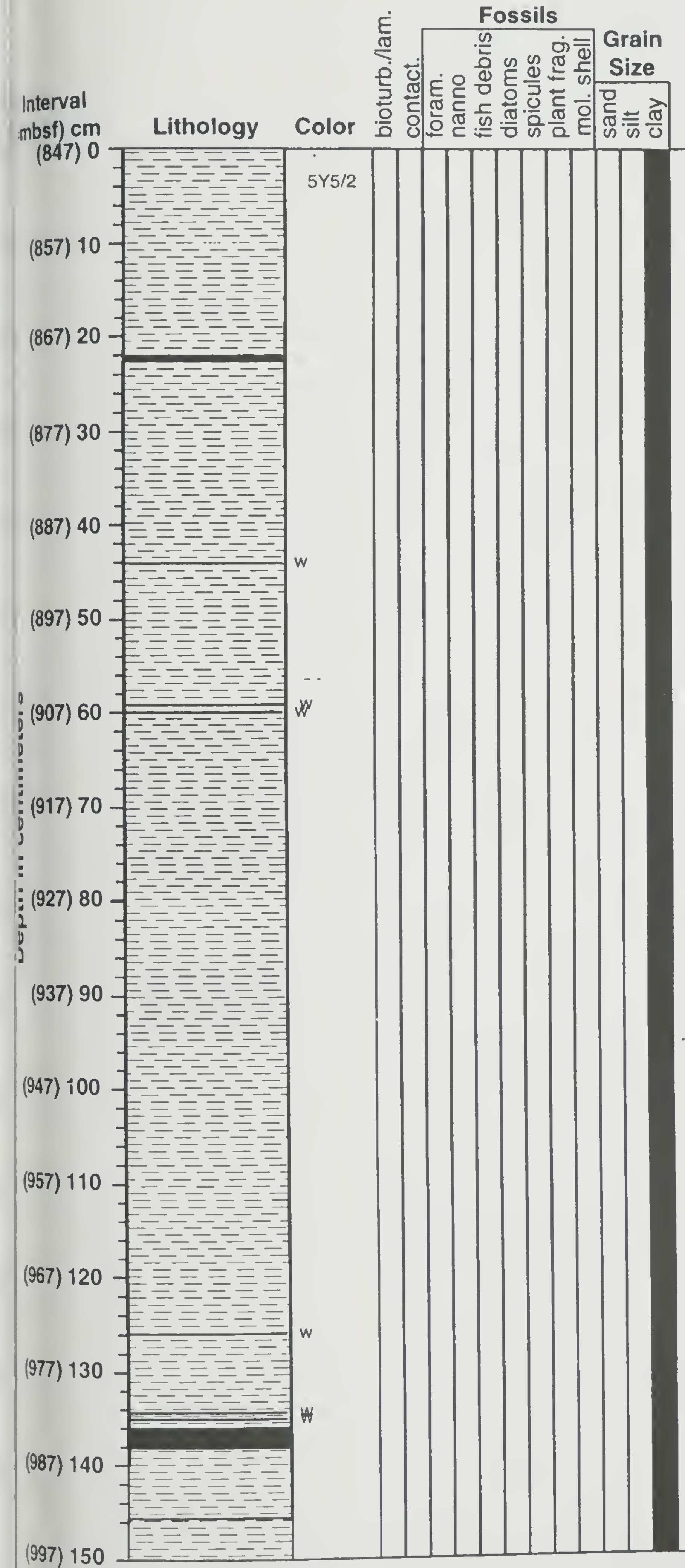
extruded between S. 4 and S. 5
(add to bottom of S. 5)



135 cm = bottom of section 5
(835 cmbsf + 12 = 847 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: PC16 Sect.: 4 (847-997 cmbsf) Lat.: 25 12.09 N Long.: 112 43.0 W
Water Depth: 542 m



Remarks

CLAY (organic-rich) :
homogeneous, lt. ol. gray (5Y5/2)

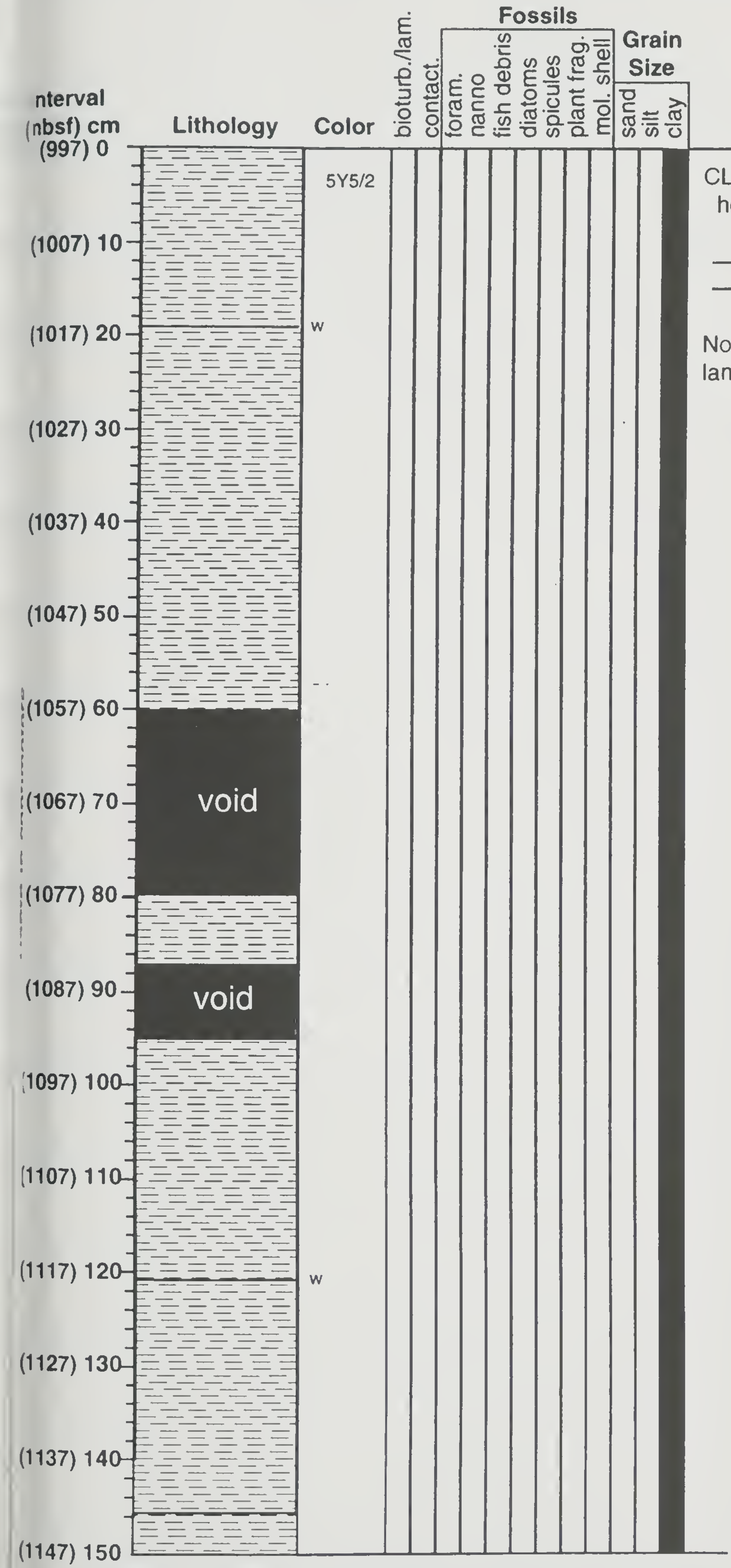
— w = white nanno ooze laminae
— = darker laminae

Note: banding and laminations are diffuse and obscure; only most distinctive bands and laminae are indicated

150 cm = bottom of section 4 (997 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: PC16 Sect.: 3 (997-1163 cmbsf) Lat.: 25 12.09 N Long.: 112 43.0 W
Water Depth: 542 m



Remarks

CLAY (organic-rich) :
homogeneous, lt. ol. gray (5Y5/2)

— w = white nanno ooze laminae
— = darker laminae

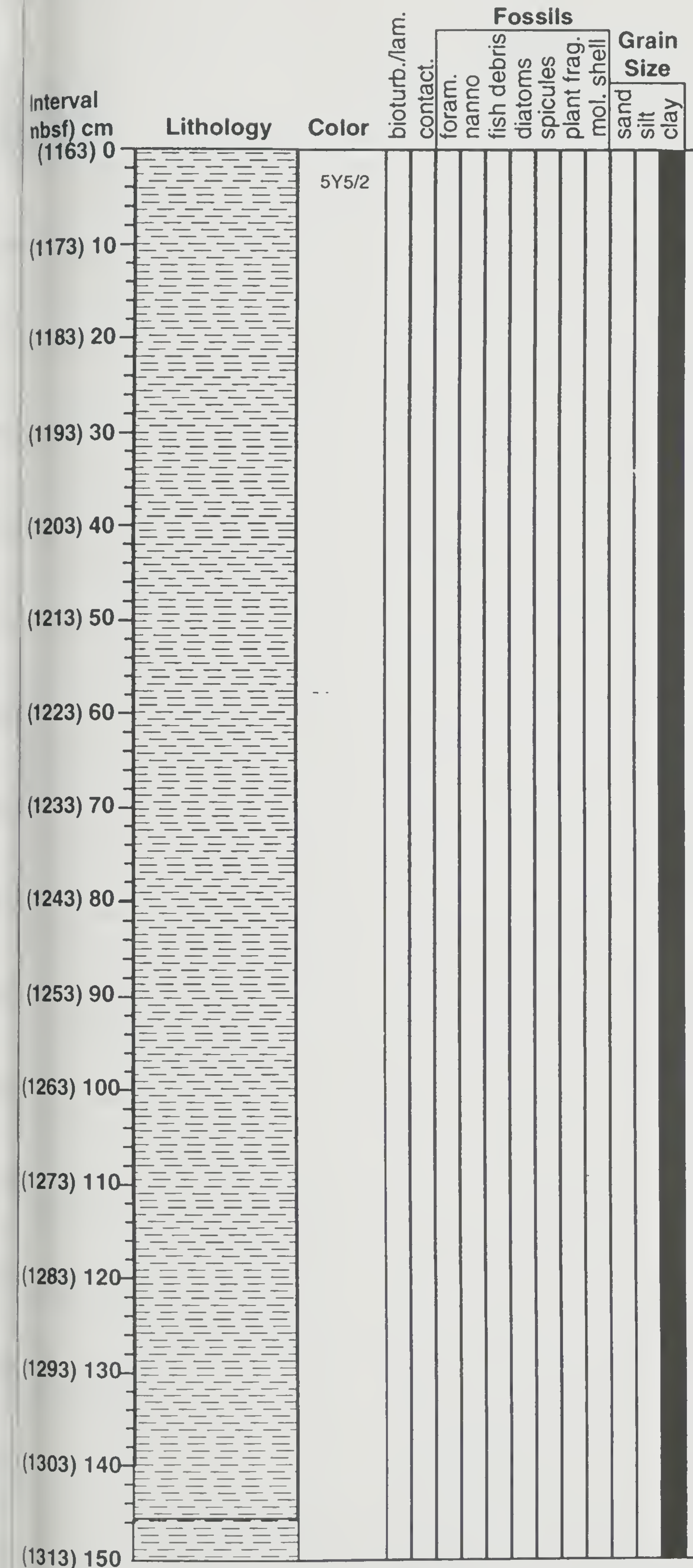
Note: banding barely visible; mostly a few white nanno ooze laminae as indicated; gas expansion cracks 95-150 cm

extruded between S. 2 and S. 3
(add to bottom of S. 3)

150 cm = bottom of section 3
(1147 cmbsf + 16 = 1163 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: PC16 Sect.: 2 (1163-1313 cmbsf) Lat.: 25 12.09 N Long.: 112 43.0 W
Water Depth: 542 m



Remarks

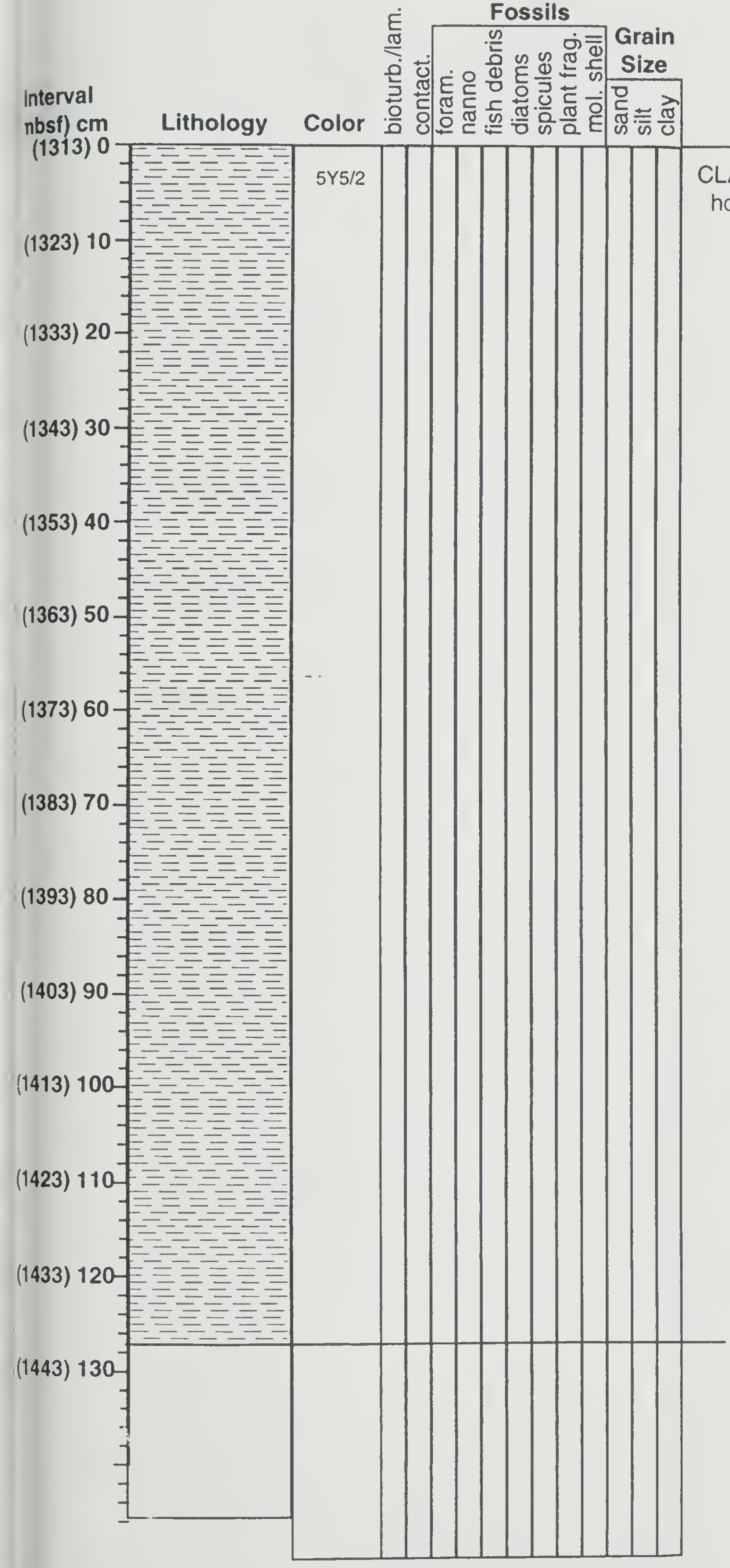
CLAY (organic-rich) :
homogeneous; no banding visible; lt. ol. gray (5Y5/2); number of shells and shell fragments increases down section

150 cm = bottom of section 2 (1313 cmbsf)

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: PC16 Sect.: 1 (1313-1440 cmbsf) Lat.: 25 12.09 N Long.: 112 43.0 W

Water Depth: 542 m



Remarks

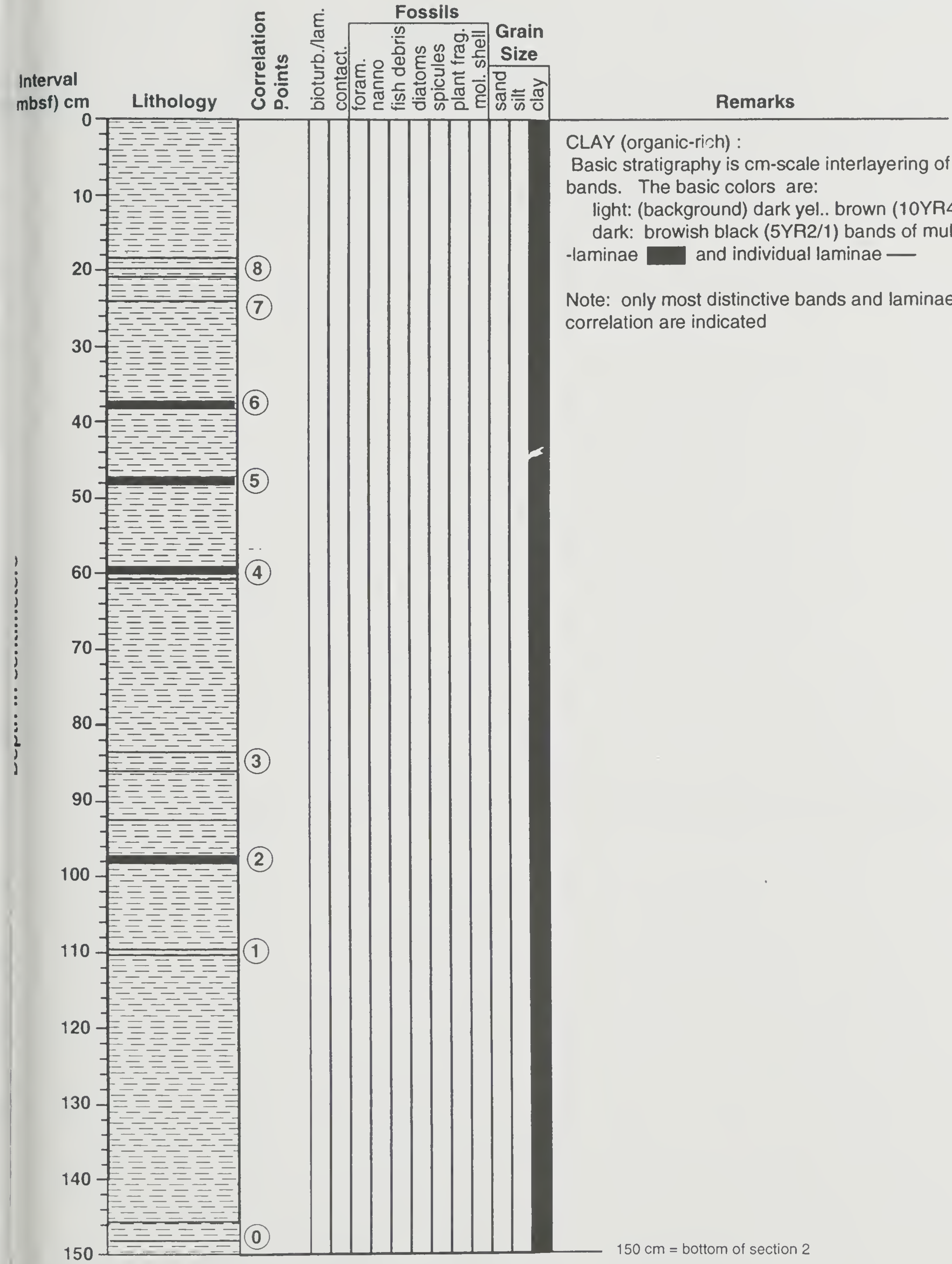
CLAY (organic-rich) :
homogeneous; no banding visible; lt. ol. gray (5Y5/2);

127 cm = bottom of section 1; 1440 cmbsf = base of core PC16

Fossils. A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

OXMZ01MV Core: TC16 Sect.: 2 (0-150 cmbsf) Lat.: 25 12.09 N Long.: 112 43.0 W

Water Depth: 542 m



CLAY (organic-rich) :

Basic stratigraphy is cm-scale interlayering of light and dark bands. The basic colors are:

light: (background) dark yel.. brown (10YR4/2) ▤

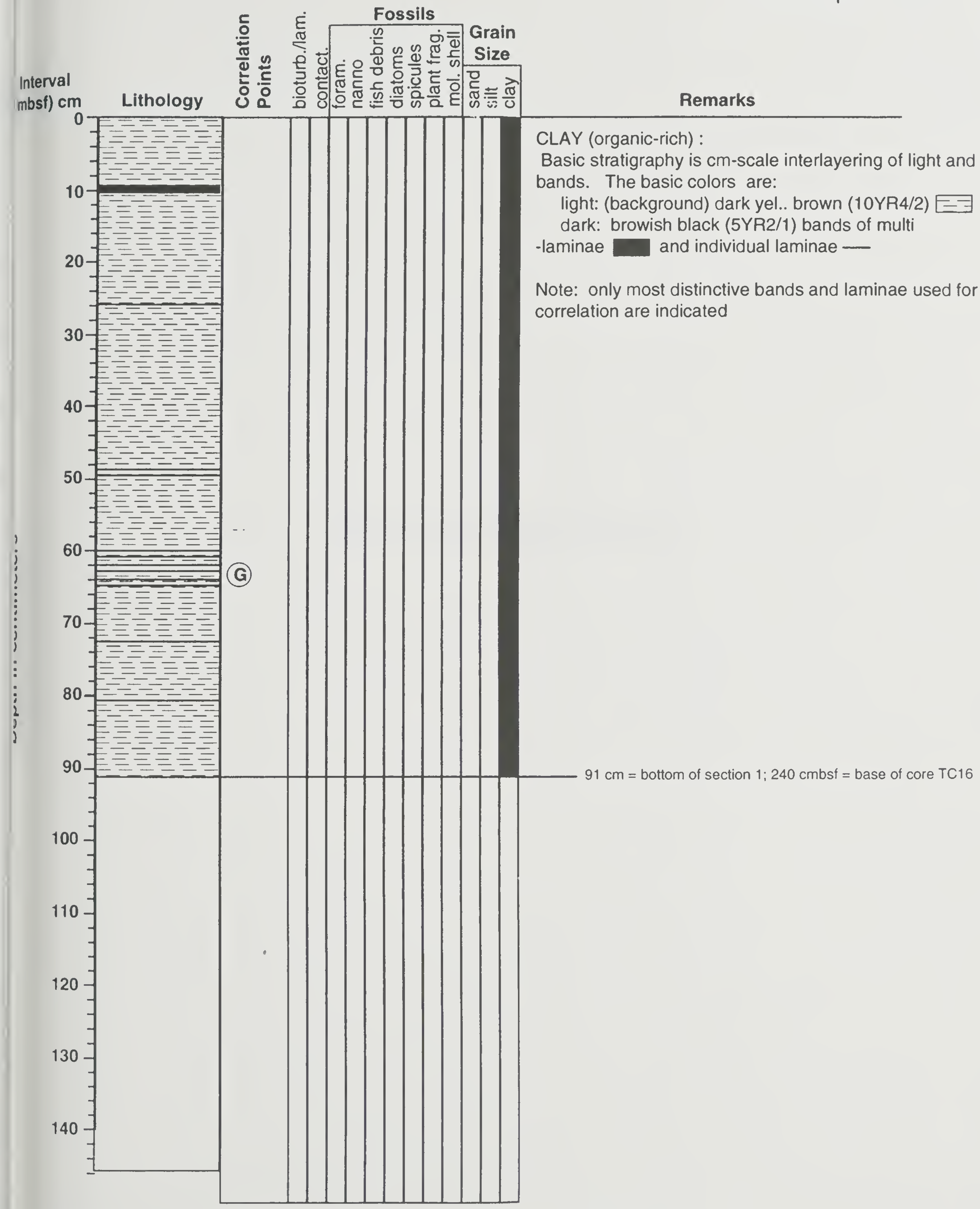
dark: browish black (5YR2/1) bands of multi -laminae ■ and individual laminae —

Note: only most distinctive bands and laminae used for correlation are indicated

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide

Contacts: S=Sharp G=gradational M=mottled

0XMZ01MV Core: TC16 Sect.: 1 (150-240 cmbsf) Lat.: 25 12.09 N Long.: 112 43.0 W
Water Depth: 542 m



CLAY (organic-rich) :
Basic stratigraphy is cm-scale interlayering of light and dark bands. The basic colors are:
light: (background) dark yel.. brown (10YR4/2) ▤
dark: browish black (5YR2/1) bands of multi -laminae ■ and individual laminae —

Note: only most distinctive bands and laminae used for correlation are indicated

91 cm = bottom of section 1; 240 cmbsf = base of core TC16

Fossils: A=Abundant C=Common R=Rare B=Barren ss=smear slide
Contacts: S=Sharp G=gradational M=mottled

Hydrographic Data

Sta No.	Samp No	Press db	Temp Deg C	Julian Day.Tm	Snsr Pair	Cond mS/cm	Salin. CTD	NO3 uM/l	PO4 uM/l	SiO3 uM/l	NO2 uM/l	O2 ml/l	CTDO2 ml/l	O2 uM/kg
2	112	52.9	10.546	303.7136	1	37.4071	33.7677	20.50	1.64	21.3	0.08	3.385	3.237	147.4
2	111	103.8	9.762	303.7112	1	36.8709	33.9332	25.13	1.99	29.3	0.04	2.541	2.440	110.6
2	110	155.4	9.347	303.7091	1	36.5994	34.0233	27.39	2.17	33.2	0.03	2.177	2.075	94.7
2	109	206.6	8.919	303.7072	1	36.3162	34.1136	29.75	2.36	38.2	0.02	1.724	1.591	75.0
2	108	257.8	8.654	303.7051	1	36.1279	34.1473	33.23	2.63	48.6	0.02	1.571	1.508	68.4
2	107	308.6	8.012	303.7031	1	35.6001	34.1857	30.79	2.44	41.2	0.03	-9.00	1.130	-9.00
2	106	359.1	7.150	303.7009	1	34.8289	34.1738	35.66	2.78	57.9	0.02	1.043	0.984	45.4
2	105	410.8	6.620	303.6972	1	34.3901	34.1930	37.78	2.94	66.3	0.02	0.784	0.712	34.1
2	104	461.2	6.055	303.6954	1	33.9379	34.2296	39.87	3.10	76.5	0.01	0.502	0.443	21.8
2	103	511.9	5.776	303.6935	1	33.7319	34.2537	40.36	3.19	83.5	0.06	0.386	0.332	16.8
2	102	552.4	5.536	303.6918	1	33.5595	34.2819	41.28	3.24	88.0	0.05	0.331	0.254	14.4
2	101	603.7	5.237	303.6896	1	33.3416	34.3122	41.71	3.31	95.1	0.05	0.268	0.198	11.7

QC notes (smb)
Bottle 7 oxygen is bad.
Bottles 7 and 8 nutrients look reversed, possible Niskin mistrip.

Sta No.	Samp No	Press db	Temp Deg C	Julian Day.Tm	Snsr Pair	Cond mS/cm	Salin. CTD	NO3 uM/l	PO4 uM/l	SiO3 uM/l	NO2 uM/l	O2 ml/l	CTDO2 ml/l	O2 uM/kg
3	112	54.1	10.996	303.9338	1	37.7440	33.6895	17.64	1.47	17.7	0.10	3.800	3.635	165.5
3	111	104.2	10.123	303.9317	1	37.1168	33.8455	22.26	1.78	24.2	0.05	3.070	2.941	133.6
3	110	155.6	9.384	303.9293	1	36.6565	34.0473	27.61	2.19	33.4	0.02	2.031	1.924	88.4
3	109	206.4	8.978	303.9272	1	36.3843	34.1283	30.87	2.45	39.4	0.02	1.344	1.276	58.5
3	108	257.4	8.353	303.9254	1	35.8523	34.1470	32.79	2.59	45.4	0.04	1.146	1.096	49.9
3	107	308.0	7.939	303.9224	1	35.5212	34.1728	34.11	2.72	51.5	0.04	0.949	0.911	41.3
3	106	359.2	7.435	303.9197	1	35.1072	34.1963	-9.00	-9.00	-9.00	-9.00	-9.00	0.630	-9.00
3	105	410.6	7.047	303.9167	1	34.7943	34.2137	36.09	3.03	68.1	0.02	0.520	0.482	22.6
3	104	461.7	6.624	303.9140	1	34.4492	34.2292	34.72	3.22	80.9	0.01	0.247	0.205	10.7
3	103	513.1	6.378	303.9106	1	34.2535	34.2333	31.99	3.36	93.0	0.00	0.054	0.017	2.3
3	102	563.3	6.307	303.9069	1	34.2134	34.2346	22.72	3.71	112.1	0.01	0.028	-0.028	1.2
3	101	583.6	6.309	303.9041	1	34.2237	34.2344	22.51	3.71	112.1	0.01	0.008	-0.028	0.3

QC notes (smb)
Niskin 6 did not trip.

Sta No.	Samp No	Press db	Temp Deg C	Julian Day.Tm	Snsr Pair	Cond mS/cm	Salin. CTD	NO3 uM/l	PO4 uM/l	SiO3 uM/l	NO2 uM/l	O2 ml/l	CTDO2 ml/l	O2 uM/kg
4	112	104.7	13.120	306.3663	1	39.6965	33.6450	14.74	1.25	25.1	0.01	-9.00	4.901	-9.00
4	111	206.5	9.151	306.3634	1	36.3813	33.9597	24.60	1.87	29.9	0.01	3.044	2.960	132.5
4	110	308.6	8.256	306.3607	1	35.8871	34.2542	32.12	2.65	49.5	0.01	1.132	1.076	49.3
4	109	410.7	7.038	306.3580	1	34.8178	34.2483	36.26	2.91	63.9	0.00	0.704	0.683	30.6
4	108	512.4	6.200	306.3550	1	34.1459	34.2913	39.62	3.13	77.8	0.00	0.362	0.316	15.7
4	107	614.7	5.723	306.3518	1	33.8314	34.3695	41.40	3.26	87.7	0.00	0.202	0.153	8.8
4	106	717.7	5.209	306.3491	1	33.4480	34.4052	42.48	3.30	94.0	0.00	0.204	0.172	8.9
4	105	819.5	4.670	306.3459	1	33.0496	34.4487	43.77	3.33	106.7	0.00	0.316	0.259	13.7
4	104	922.0	4.226	306.3430	1	32.7236	34.4770	44.32	3.33	115.8	0.00	0.438	0.379	19.0
4	103	1024.0	3.865	306.3404	1	32.4718	34.5053	44.37	3.31	123.3	0.00	0.568	0.511	24.7
4	102	1229.5	3.397	306.3355	1	32.1716	34.5360	44.10	3.27	134.1	0.00	0.787	0.733	34.2
4	101	1414.0	3.161	306.3312	1	32.0562	34.5534	43.99	3.24	139.1	0.00	0.918	0.890	39.9

QC notes (smb)
Surface (bottle 12) oxygen bad.

Sta No.	Samp No	Press db	Temp Deg C	Julian Day.Tm	Snsr Pair	Cond mS/cm	Salin. CTD	NO3 uM/l	PO4 uM/l	SiO3 uM/l	NO2 uM/l	O2 ml/l	CTDO2 ml/l	O2 uM/kg
5	112	104.8	10.789	306.7683	1	37.6210	33.7346	17.65	1.42	18.1	0.02	3.762	3.606	163.8
5	111	206.4	9.064	306.7647	1	36.5541	34.2224	29.23	2.40	40.2	0.01	1.592	1.484	69.3
5	110	308.9	8.319	306.7609	1	36.0020	34.3149	32.70	2.77	52.1	0.01	0.806	0.733	35.1
5	109	410.1	7.531	306.7579	1	35.3532	34.3439	35.60	2.98	62.2	0.00	0.430	0.378	18.7
5	108	512.9	6.572	306.7553	1	34.5447	34.3619	38.78	3.17	74.9	0.00	0.234	0.179	10.2
5	107	615.0	5.646	306.7515	1	33.7847	34.3947	41.67	3.28	88.8	0.00	0.184	0.128	8.0
5	106	717.2	5.044	306.7487	1	33.3181	34.4258	-9.00	-9.00	-9.00	-9.00	-9.00	0.178	-9.00
5	105	819.4	4.621	306.7459	1	33.0068	34.4506	43.98	3.33	107.3	0.00	0.349	0.264	15.2
5	104	922.2	4.357	306.7433	1	32.8336	34.4701	44.26	3.33	113.0	0.00	0.401	0.334	17.4
5	103	1024.4	3.948	306.7401	1	32.5388	34.4977	44.43	3.31	121.4	0.00	0.541	0.479	23.5
5	102	1229.4	3.475	306.7355	1	32.2371	34.5320	44.06	3.28	132.8	0.00	0.756	0.686	32.9
5	101	1423.7	3.133	306.7314	1	32.0383	34.5564	43.80	3.23	140.9	0.00	0.942	0.891	40.9

QC notes (smb)
Niskin 6 did not trip.

Sta No.	Samp No	Press db	Temp Deg C	Julian Day.Tm	Snsr Pair	Cond mS/cm	Salin. CTD	NO3 uM/l	PO4 uM/l	SiO3 uM/l	NO2 uM/l	O2 ml/l	CTDO2 ml/l	O2 uM/kg
6	112	105.2	11.338	307.2259	1	38.2074	33.8122	26.63	2.18	45.1	0.01	-9.00	3.238	-9.00
6	111	206.6	10.333	307.2238	1	37.8734	34.3691	28.84	2.50	37.4	0.01	1.024	0.916	44.6
6	110	309.4	8.701	307.2217	1	36.3859	34.3487	31.74	2.72	49.2	0.01	0.777	0.730	33.8
6	109	411.3	7.281	307.2195	1	35.1317	34.3496	36.46	3.03	65.7	0.00	0.358	0.302	15.6
6	108	513.4	6.451	307.2175	1	34.4666	34.3958	39.40	3.20	78.7	0.00	0.158	0.107	6.9
6	107	615.3	5.675	307.2155	1	33.8317	34.4177	41.76	3.26	90.3	0.01	0.166	0.108	7.2
6	106	718.6	5.036	307.2131	1	33.3222	34.4381	43.27	3.31	100.6	0.01	0.235	0.172	10.2
6	105	819.9	4.703	307.2108	1	33.0922	34.4646	44.08	3.33	106.4	0.01	0.286	0.222	12.4
6	104	922.6	4.282	307.2081	1	32.7751	34.4793	44.46	3.32	114.8	0.00	0.418	0.350	18.2
6	103	1024.8	4.032	307.2057	1	32.6187	34.5043	44.68	3.33	120.4	0.00	0.494	0.422	21.5
6	102	1230.3	3.475	307.2023	1	32.2466	34.5425	44.40	3.28	133.1	0.00	0.740	0.667	32.2
6	101	1435.1	3.052	307.1989	1	31.9865	34.5740	43.86	3.23	142.4	0.01	1.001	0.939	43.5

QC notes (smb)
Surface (bottle 12) oxygen bad.

Sta No.	Samp No	Press db	Temp Deg C	Julian Day.Tm	Snsr Pair	Cond mS/cm	Salin. CTD	NO3 uM/l	PO4 uM/l	SiO3 uM/l	NO2 uM/l	O2 ml/l	CTDO2 ml/l	O2 uM/kg
7	112	104.6	11.559	307.9615	1	38.5243	33.9216	19.93	1.70	21.4	0.02	2.823	2.648	122.9
7	111	206.4	10.887	307.9584	1	38.5329	34.5102	28.13	2.65	38.8	0.01	0.518	0.456	22.5
7	110	308.4	9.584	307.9558	1	37.3230	34.4744	29.98	2.78	45.8	0.01	0.409	0.360	17.8
7	109	410.7	7.802	307.9522	1	35.6726	34.4205	34.59	3.04	61.9	0.00	0.216	0.172	9.4
7	108	512.5	6.788	307.9495	1	34.8015	34.4292	37.72	3.19	74.4	0.00	0.117	0.072	5.1
7	107	615.2	5.847	307.9466	1	34.0038	34.4382	41.03	3.28	86.5	0.00	0.123	0.077	5.3
7	106	717.0	5.201	307.9440	1	33.4865	34.4584	42.72	3.32	97.3	0.00	0.187	0.134	8.1
7	105	819.2	4.700	307.9410	1	33.1012	34.4786	43.73	3.33	105.7	0.00	0.278	0.218	12.1
7	104	921.8	4.395	307.9381	1	32.8865	34.4927	43.94	3.33	112.1	0.01	0.359	0.297	15.6
7	103	1024.2	4.096	307.9349	1	32.6791	34.5092	44.15	3.33	118.4	0.01	0.455	0.398	19.8
7	102	1229.2	3.490	307.9310	1	32.2620	34.5462	43.89	3.27	131.3	0.01	0.725	0.670	31.5
7	101	1433.4	3.100	307.9270	1	32.0279	34.5741	43.47	3.22	140.0	0.01	0.969	0.924	42.1

Sta No.	Samp No	Press db	Temp Deg C	Julian Day.Tm	Snsr Pair	Cond mS/cm	Salin. CTD	NO3 uM/l	PO4 uM/l	SiO3 uM/l	NO2 uM/l	O2 ml/l	CTDO2 ml/l	O2 uM/kg
8	112	104.0	12.413	308.5409	1	39.4358	34.0310	21.03	1.85	21.9	0.02	2.261	2.126	98.4
8	111	206.6	11.168	308.5378	1	38.8862	34.5973	28.33	2.72	38.7	0.01	0.301	0.235	13.1
8	110	308.2	9.726	308.5350	1	37.5273	34.5485	29.64	2.90	47.8	0.01	0.173	0.139	7.5
8	109	410.1	8.364	308.5324	1	36.2535	34.4902	33.37	3.07	58.6	0.00	0.112	0.075	4.9
8	108	512.7	6.819	308.5296	1	34.8536	34.4560	38.34	3.25	75.2	0.00	0.081	0.038	3.5
8	107	614.5	6.266	308.5271	1	34.4040	34.4636	40.21	3.31	83.0	0.00	0.083	0.037	3.6
8	106	716.9	5.471	308.5244	1	33.7408	34.4719	42.67	3.37	94.3	0.00	0.130	0.080	5.7
8	105	818.9	4.955	308.5216	1	33.3340	34.4849	43.96	3.40	102.7	0.00	0.207	0.147	9.0
8	104	921.2	4.412	308.5186	1	32.9150	34.5084	44.77	3.40	113.2	0.00	0.332	0.262	14.4
8	103	1023.5	3.930	308.5158	1	32.5507	34.5311	44.77	3.38	123.2	0.00	0.499	0.438	21.7
8	102	1228.7	3.530	308.5115	1	32.3042	34.5542	44.55	3.34	131.9	0.00	0.695	0.627	30.2
8	101	1433.5	3.168	308.5072	1	32.0887	34.5750	44.07	3.29	140.2	0.00	0.906	0.854	39.4

Sta No.	Samp No	Press db	Temp Deg C	Julian Day.Tm	Snsr Pair	Cond mS/cm	Salin. CTD	NO3 uM/l	PO4 uM/l	SiO3 uM/l	NO2 uM/l	O2 ml/l	CTDO2 ml/l	O2 uM/kg
9	112	53.6	16.006	309.1212	1	42.4291	33.6648	0.11	0.32	3.5	0.01	5.773	5.480	251.6
9	111	104.6	12.700	309.1189	1	39.7803	34.1007	22.40	2.01	23.3	0.03	1.738	1.601	75.7
9	110	205.9	11.646	309.1162	1	39.3551	34.6138	28.23	2.68	36.3	0.01	0.284	0.246	12.4
9	109	308.1	10.196	309.1134	1	38.0053	34.5874	28.75	2.85	44.4	0.01	0.135	0.104	5.9
9	108	359.2	9.824	309.1112	1	37.6834	34.5914	28.65	2.92	49.0	0.01	0.051	0.020	2.2
9	107	410.4	8.895	309.1093	1	36.7873	34.5353	31.18	3.01	55.3	0.02	0.067	0.038	2.9
9	106	461.4	8.233	309.1072	1	36.1913	34.5280	30.81	3.10	64.7	0.02	0.024	-0.005	1.0
9	105	512.6	7.906	309.1050	1	35.9011	34.5150	32.69	3.14	66.6	0.00	0.036	-0.008	1.6
9	104	563.6	7.758	309.1026	1	35.7817	34.5094	32.69	3.17	68.3	0.00	0.026	-0.012	1.1
9	103	614.6	7.727	309.1002	1	35.7742	34.5082	32.69	3.17	68.8	0.00	0.027	-0.014	1.2
9	102	665.8	7.697	309.0981	1	35.7671	34.5062	33.11	3.16	68.8	0.00	0.030	-0.013	1.3
9	101	710.8	7.670	309.0951	1	35.7607	34.5041	32.89	3.16	68.6	0.01	0.035	-0.011	1.5

QC notes (smb)
Bottle 6 NO3 low. This is the top of the O2 min and there is a slight NO2 increase.

Sta No.	Samp No	Press db	Temp Deg C	Julian Day.Tm	Snsr Pair	Cond mS/cm	Salin. CTD	NO3 uM/l	PO4 uM/l	SiO3 uM/l	NO2 uM/l	O2 ml/l	CTDO2 ml/l	O2 uM/kg
10	112	105.2	12.806	310.0504	1	39.9195	34.138	22.13	1.98	23.6	0.01	1.889	1.77	82.2
10	111	207.9	10.892	310.0475	1	38.5072	34.4785	28.17	2.57	36.5	0	0.744	0.689	32.4
10	110	309	9.856	310.0449	1	37.6737	34.5734	29.47	2.89	45.9	0	0.093	0.067	4
10	109	411.2	8.61	310.0421	1	36.5213	34.5326	32.05	3.06	58.1	0	0.049	0.021	2.1
10	108	513.5	7.378	310.0396	1	35.4078	34.5043	35.94	3.21	70.3	0	0.041	0.003	1.8
10	107	615.5	6.331	310.0368	1	34.4835	34.4862	38.4	3.27	77.6	0	0.047	0.019	2
10	106	717.5	5.597	310.0338	1	33.8782	34.499	42.39	3.38	92.6	0	0.087	0.04	3.8
10	105	819.7	5.006	310.0247	1	33.4007	34.5085	44.15	3.42	101.8	0	0.154	0.09	6.7
10	104	922	4.571	310.021	1	33.0696	34.5228	44.85	3.43	110	0	0.231	0.172	10
10	103	1024.3	4.165	310.0172	1	32.7641	34.5372	45.18	3.42	118.1	0	0.372	0.298	16.2
10	102	1228.9	3.553	310.0124	1	32.3342	34.5661	44.65	3.35	131.1	0	0.662	0.589	28.8
10	101	1434.7	3.182	310.0073	1	32.1092	34.5844	44.17	3.28	139.2	0		0.861	

Sta No.	Samp No	Press db	Temp Deg C	Julian Day.Tm	Snsr Pair	Cond mS/cm	Salin. CTD	NO3 uM/l	PO4 uM/l	SiO3 uM/l	NO2 uM/l	O2 ml/l	CTDO2 ml/l	O2 uM/kg
11	112	53.2	16.752	310.9946	1	43.5483	34.0170	4.32	0.79	6.8	0.36	4.400	4.094	191.8
11	111	103.9	13.583	310.9919	1	41.0728	34.5290	26.52	2.48	29.5	0.01	0.621	0.574	27.0
11	110	154.8	12.613	310.9894	1	40.3132	34.6699	27.87	2.74	36.2	0.01	0.144	0.107	6.3
11	109	205.3	11.900	310.9872	1	39.6790	34.6942	27.31	2.81	39.4	0.01	0.047	0.024	2.0
11	108	256.8	11.030	310.9850	1	38.8518	34.6713	26.18	2.90	44.4	0.16	0.018	-0.006	0.8
11	107	307.6	10.096	310.9831	1	37.9398	34.6163	28.14	2.95	47.8	0.01	0.022	-0.002	1.0
11	106	338.4	9.581	310.9814	1	37.4428	34.5863	29.23	3.00	51.3	0.01	0.033	-0.002	1.4
11	105	368.9	9.052	310.9793	1	36.9412	34.5636	30.32	3.06	55.9	0.01	0.046	-0.007	2.0
11	104	410.0	8.698	310.9774	1	36.6169	34.5478	31.36	3.11	59.0	0.01	0.034	-0.010	1.5
11	103	440.3	8.198	310.9758	1	36.1575	34.5366	31.52	3.16	65.1	0.01	0.022	-0.019	1.0
11	102	471.1	7.705	310.9739	1	35.7053	34.5226	32.24	3.22	71.0	0.01	0.023	-0.022	1.0
11	101	501.9	7.511	310.9719	1	35.5363	34.5176	32.33	3.23	73.5	0.03	0.022	-0.017	1.0

QC notes (smb)
Bottle 8 NO3 low. Top of the O2 min and NO2 increase is at this depth.

Sta No.	Samp No	Press db	Temp Deg C	Julian Day.Tm	Snsr Pair	Cond mS/cm	Salin. CTD	NO3 uM/l	PO4 uM/l	SiO3 uM/l	NO2 uM/l	O2 ml/l	CTDO2 ml/l	O2 uM/kg
12	112	53.6	16.396	311.8264	1	42.9810	33.8212	0.49	0.40	4.4	0.03	5.385	5.049	234.7
12	111	104.1	13.589	311.8243	1	40.9137	34.3734	24.47	2.22	25.4	0.01	1.105	1.026	48.1
12	110	206.7	11.387	311.8209	1	39.1304	34.6337	28.25	2.71	37.8	0.01	0.189	0.142	8.2
12	109	308.0	10.316	311.8173	1	38.1521	34.6213	27.83	2.87	45.4	0.01	0.051	0.019	2.2
12	108	359.5	9.218	311.8150	1	37.1019	34.5738	29.42	3.00	54.4	0.00	0.039	0.000	1.7
12	107	410.1	8.309	311.8120	1	36.2371	34.5270	32.65	3.08	60.5	0.00	0.045	0.005	2.0
12	106	461.2	7.660	311.8099	1	35.6547	34.5179	34.24	3.17	68.7	0.00	0.035	-0.010	1.5
12	105	512.1	7.082	311.8074	1	35.1377	34.5058	36.26	3.23	74.2	0.00	0.046	-0.014	2.0
12	104	563.4	6.712	311.8052	1	34.8200	34.5010	37.65	3.26	78.3	0.00	0.043	-0.013	1.9
12	103	614.7	6.327	311.8030	1	34.4894	34.4970	39.26	3.30	82.7	0.00	0.056	-0.007	2.4
12	102	666.0	6.059	311.8011	1	34.2695	34.4969	40.17	3.32	86.3	0.02	0.055	-0.002	2.4
12	101	715.1	5.997	311.7991	1	34.2340	34.4958	40.34	3.32	87.0	0.06	0.061	0.004	2.7

Sta No.	Samp No	Press db	Temp Deg C	Julian Day.Tm	Snsr Pair	Cond mS/cm	Salin. CTD	NO3 uM/l	PO4 uM/l	SiO3 uM/l	NO2 uM/l	O2 ml/l	CTDO2 ml/l	O2 uM/kg
13	112	53.4	17.010	312.8135	1	43.3916	33.6632	0.10	0.25	3.1	0.00	5.963	5.510	260.0
13	111	104.4	13.233	312.8118	1	40.2167	34.0367	19.13	1.71	18.6	0.05	2.361	2.103	102.8
13	110	206.1	11.311	312.8092	1	39.0444	34.6206	27.82	2.72	38.4	0.01	0.231	0.199	10.1
13	109	308.2	10.634	312.8064	1	38.4604	34.6310	27.51	2.84	43.5	0.01	0.058	0.033	2.5
13	108	358.6	9.307	312.8043	1	37.1727	34.5622	29.71	2.96	52.3	0.01	0.054	0.023	2.3
13	107	410.6	8.753	312.8022	1	36.6609	34.5408	30.94	3.03	57.6	0.01	0.045	0.010	2.0
13	106	461.5	7.633	312.8003	1	35.6237	34.5102	34.60	3.17	68.3	0.01	0.039	-0.002	1.7
13	105	512.7	7.044	312.7979	1	35.0959	34.4968	36.99	3.23	74.2	0.00	0.047	-0.002	2.0
13	104	563.5	6.580	312.7957	1	34.6961	34.4972	38.44	3.28	79.9	0.00	0.045	-0.006	2.0
13	103	614.8	6.313	312.7930	1	34.4778	34.4986	39.07	3.30	83.9	0.00	0.048	-0.007	2.1
13	102	665.7	6.014	312.7909	1	34.2298	34.4975	40.16	3.33	87.7	0.01	0.055	0.005	2.4
13	101	706.1	5.868	312.7885	1	34.1152	34.4977	40.55	3.35	89.7	0.03	0.062	0.014	2.7

Sta No.	Samp No	Press db	Temp Deg C	Julian Day.Tm	Snsr Pair	Cond mS/cm	Salin. CTD	NO3 uM/l	PO4 uM/l	SiO3 uM/l	NO2 uM/l	O2 ml/l	CTDO2 ml/l	O2 uM/kg
14	112	53.7	17.106	313.8008	1	44.1603	34.2497	9.60	1.17	10.8	0.12	3.450	3.302	150.3
14	111	104.6	14.061	313.7990	1	41.5599	34.5526	25.31	2.40	28.5	0.02	0.706	0.615	30.7
14	110	155.8	12.368	313.7967	1	40.0696	34.6609	28.01	2.67	35.7	0.01	0.170	0.131	7.4
14	109	207.2	11.388	313.7947	1	39.1766	34.6782	27.66	2.77	39.8	0.01	0.046	0.022	2.0
14	108	308.6	9.812	313.7913	1	37.6606	34.6021	29.04	2.92	49.0	0.01	0.036	0.002	1.6
14	107	338.8	9.324	313.7893	1	37.1844	34.5667	30.16	2.95	51.0	0.01	0.050	0.013	2.2
14	106	369.2	8.768	313.7878	1	36.6649	34.5492	31.60	3.02	56.1	0.01	0.042	0.000	1.8
14	105	410.3	7.984	313.7848	1	35.9286	34.5169	34.02	3.11	63.3	0.00	0.065	-0.001	2.8
14	104	441.4	7.688	313.7835	1	35.6662	34.5119	34.84	3.14	66.5	0.00	0.044	-0.004	1.9
14	103	471.2	7.425	313.7817	1	35.4351	34.5083	35.66	3.17	69.5	0.01	0.041	-0.009	1.8
14	102	511.8	7.174	313.7792	1	35.2212	34.5049	36.43	3.20	72.3	0.02	0.045	-0.007	2.0
14	101	542.8	6.789	313.7765	1	34.8816	34.5018	37.45	3.23	76.8	0.04	0.048	0.000	2.1

Sta No.	Samp No	Press db	Temp Deg C	Julian Day.Tm	Snsr Pair	Cond mS/cm	Salin. CTD	NO3 uM/l	PO4 uM/l	SiO3 uM/l	NO2 uM/l	O2 ml/l	CTDO2 ml/l	O2 uM/kg
15	112	52.6	16.477	315.0516	1	43.0190	33.7865	0.05	0.35	3.3	0.00	5.768	5.268	251.4
15	111	103.4	13.688	315.0490	1	40.7019	34.0870	19.04	1.73	18.4	0.03	2.278	2.142	99.2
15	110	205.1	11.333	315.0453	1	39.0241	34.5798	28.41	2.67	36.4	0.01	0.330	0.279	14.4
15	109	308.1	9.976	315.0419	1	37.7904	34.5785	29.22	2.87	44.9	0.00	0.099	0.064	4.3
15	108	359.0	9.373	315.0396	1	37.2268	34.5540	30.02	2.94	49.8	0.00	0.086	0.048	3.7
15	107	409.6	8.591	315.0368	1	36.4996	34.5289	31.99	3.05	57.1	0.00	0.058	0.020	2.5
15	106	460.4	7.851	315.0344	1	35.8309	34.5195	36.41	3.23	73.8	0.00	0.028	-0.009	1.2
15	105	511.7	7.096	315.0326	1	35.1499	34.5047	33.62	3.15	66.0	0.00	0.035	-0.011	1.5
15	104	563.1	6.599	315.0300	1	34.7170	34.5007	37.59	3.28	80.1	0.00	0.035	-0.015	1.5
15	103	614.0	6.178	315.0280	1	34.3524	34.4944	40.00	3.32	84.2	0.00	0.053	0.002	2.3
15	102	665.6	5.892	315.0260	1	34.1185	34.4965	40.88	3.33	87.9	0.00	0.069	0.015	3.0
15	101	703.0	5.616	315.0238	1	33.8881	34.4990	39.02	3.31	83.0	0.01	0.055	0.033	2.4

QC notes (smb)
Bottles 5 and 6 nutrients reversed. Possible Niskin mistrip.

Sta No.	Samp No	Press db	Temp Deg C	Julian Day.Tm	Snsr Pair	Cond mS/cm	Salin. CTD	NO3 uM/l	PO4 uM/l	SiO3 uM/l	NO2 uM/l	O2 ml/l	CTDO2 ml/l	O2 uM/kg
16	112	53.0	16.384	315.1647	1	42.7391	33.6190	0.05	0.25	2.7	0.00	5.969	5.546	260.2
16	111	103.2	12.670	315.1626	1	39.8014	34.1492	23.35	2.12	25.0	0.02	1.495	1.378	65.1
16	110	206.2	11.580	315.1599	1	39.3202	34.6407	27.82	2.72	37.6	0.01	0.190	0.151	8.3
16	109	308.2	10.006	315.1569	1	37.8279	34.5875	29.03	2.88	45.5	0.01	0.083	0.045	3.6
16	108	359.4	9.303	315.1550	1	37.1692	34.5618	29.94	2.97	51.7	0.01	0.058	0.014	2.5
16	107	410.1	8.733	315.1530	1	36.6392	34.5377	31.35	3.04	56.9	0.00	0.054	0.010	2.3
16	106	460.7	7.835	315.1510	1	35.8172	34.5194	33.58	3.16	66.2	0.00	0.032	-0.016	1.4
16	105	512.0	7.192	315.1490	1	35.2378	34.5050	36.17	3.22	72.4	0.00	0.042	-0.019	1.8
16	104	563.3	6.581	315.1469	1	34.6995	34.4998	38.22	3.29	79.8	0.00	0.039	-0.020	1.7
16	103	614.2	6.391	315.1451	1	34.5510	34.5007	37.76	3.30	83.5	0.00	0.031	-0.025	1.3
16	102	665.3	5.979	315.1428	1	34.1990	34.4994	39.51	3.34	88.9	0.00	0.048	-0.015	2.1
16	101	691.0	5.863	315.1411	1	34.1053	34.4991	39.29	3.35	90.4	0.01	0.047	-0.015	2.0

Sta No.	Samp No	Press db	Temp Deg C	Julian Day.Tm	Snsr Pair	Cond mS/cm	Salin. CTD	NO3 uM/l	PO4 uM/l	SiO3 uM/l	NO2 uM/l	O2 ml/l	CTDO2 ml/l	O2 uM/kg
17	112	52.1	15.560	319.7120	1	42.0386	33.6973	0.06	0.32	3.5	0.00	5.642	5.183	245.8
17	111	102.9	13.239	319.7094	1	40.5537	34.3502	23.92	2.22	26.6	0.01	1.154	1.048	50.2
17	110	154.3	11.832	319.7067	1	39.4986	34.6031	27.28	2.70	37.4	0.01	0.206	0.169	9.0
17	109	205.2	11.406	319.7044	1	39.1265	34.6133	26.98	2.79	40.7	0.01	0.112	0.084	4.9
17	108	256.9	10.717	319.7020	1	38.4734	34.5880	26.63	2.86	45.2	0.01	0.073	0.041	3.2
17	107	307.1	10.489	319.6991	1	38.2711	34.5785	27.03	2.88	45.9	0.01	0.071	0.042	3.1
17	106	358.5	10.269	319.6967	1	38.0759	34.5672	26.93	2.93	47.9	0.01	0.049	0.018	2.1
17	105	409.7	10.161	319.6934	1	37.9896	34.5587	27.28	2.92	48.0	0.01	0.087	0.046	3.8
17	104	440.2	10.130	319.6912	1	37.9744	34.5595	27.47	2.91	47.9	0.01	0.094	0.059	4.1
17	103	470.1	10.097	319.6886	1	37.9552	34.5578	26.07	2.95	49.9	0.01	0.060	0.009	2.6
17	102	511.3	10.031	319.6862	1	37.9101	34.5574	26.51	2.92	49.3	0.12	0.066	0.038	2.9
17	101	542.9	10.016	319.6839	1	37.9097	34.5565	27.27	2.89	48.4	0.10	0.099	0.069	4.3

Sta No.	Samp No	Press db	Temp Deg C	Julian Day.Tm	Snsr Pair	Cond mS/cm	Salin. CTD	NO3 uM/l	PO4 uM/l	SiO3 uM/l	NO2 uM/l	O2 ml/l	CTDO2 ml/l	O2 uM/kg
18	112	54.8	13.720	325.5858	1	40.0829	33.5004	8.16	0.85	8.6	0.05	4.819	5.183	209.9
18	111	106.8	10.137	325.5836	1	36.9258	33.6370	18.69	1.47	19.7	0.02	4.042	3.761	176.0
18	110	207.7	8.380	325.5803	1	35.7670	34.0539	27.87	2.12	38.3	0.00	2.594	2.459	112.9
18	109	309.6	7.840	325.5772	1	35.5245	34.2720	33.47	2.75	54.6	0.00	0.919	0.813	40.0
18	108	411.9	7.160	325.5738	1	35.0088	34.3348	36.52	3.02	66.3	0.00	0.398	0.332	17.3
18	107	516.1	6.333	325.5710	1	34.3283	34.3597	39.42	3.18	78.3	0.01	0.220	0.161	9.6
18	106	616.8	5.710	325.5677	1	33.8292	34.3791	41.31	3.26	88.1	0.01	0.204	0.134	8.9
18	105	719.2	5.069	325.5646	1	33.3273	34.4101	42.78	3.29	98.8	0.01	0.247	0.176	10.7
18	104	921.9	4.293	325.5606	1	32.7766	34.4698	44.04	3.30	114.6	0.00	0.429	0.348	18.7
18	103	1129.5	3.711	325.5565	1	32.3885	34.5150	44.04	3.28	127.6	0.00	0.647	0.567	28.1
18	102	1282.7	3.324	325.5520	1	32.1354	34.5420	43.73	3.21	136.5	0.00	0.844	0.767	36.7
18	101	1435.6	3.002	325.5482	1	31.9346	34.5640	43.25	3.19	144.7	0.00	1.040	0.968	45.2

Sta No.	Samp No	Press db	Temp Deg C	Julian Day.Tm	Snsr Pair	Cond mS/cm	Salin. CTD	NO3 uM/l	PO4 uM/l	SiO3 uM/l	NO2 uM/l	O2 ml/l	CTDO2 ml/l	O2 uM/kg
19	112	56.8	12.218	325.9631	1	38.8166	33.6295	12.00	1.10	12.5	0.04	4.338	4.046	188.9
19	111	108.1	10.305	325.9602	1	37.3186	33.8783	21.87	1.77	26.2	0.01	2.894	2.725	126.0
19	110	209.6	9.077	325.9564	1	36.5219	34.1754	29.62	2.39	40.2	0.01	1.553	1.409	67.6
19	109	311.7	8.362	325.9537	1	36.0010	34.2708	31.88	2.64	49.2	0.01	1.109	0.987	48.2
19	108	414.0	7.286	325.9503	1	35.0745	34.2817	35.59	2.90	62.8	0.01	0.643	0.571	28.0
19	107	516.5	6.465	325.9468	1	34.4246	34.3338	38.60	3.12	76.1	0.01	0.297	0.238	12.9
19	106	618.6	5.697	325.9434	1	33.7983	34.3567	41.21	3.22	87.9	0.01	0.220	0.161	9.6
19	105	720.8	5.147	325.9401	1	33.3889	34.3999	42.58	3.27	98.0	0.00	0.240	0.174	10.4
19	104	874.7	4.427	325.9366	1	32.8651	34.4583	43.79	3.29	111.8	0.00	0.377	0.306	16.4
19	103	1027.5	3.952	325.9328	1	32.5409	34.4947	44.05	3.28	122.7	0.00	0.539	0.466	23.4
19	102	1233.1	3.374	325.9281	1	32.1540	34.5370	43.63	3.23	136.6	0.00	0.794	0.723	34.5
19	101	1437.9	3.229	325.9240	1	32.1217	34.5479	43.31	3.23	141.1	0.00	0.878	0.816	38.2

Sta No.	Samp No	Press db	Temp Deg C	Julian Day.Tm	Snsr Pair	Cond mS/cm	Salin. CTD	NO3 uM/l	PO4 uM/l	SiO3 uM/l	NO2 uM/l	O2 ml/l	CTDO2 ml/l	O2 uM/kg
20	112	53.5	11.448	326.4940	1	38.1467	33.6741	14.98	1.24	14.7	0.02	4.206	3.819	183.1
20	111	104.3	9.685	326.4920	1	36.7428	33.8743	22.43	1.69	25.5	0.03	3.310	3.099	144.1
20	110	207.0	8.928	326.4893	1	36.4104	34.2032	30.08	2.42	41.9	0.01	1.446	1.346	62.9
20	109	308.7	7.764	326.4855	1	35.4029	34.2161	33.43	2.65	53.3	0.00	1.193	1.042	51.9
20	108	410.9	6.849	326.4822	1	34.6515	34.2527	36.95	2.92	66.6	0.00	0.624	0.555	27.1
20	107	513.2	6.088	326.4788	1	34.0632	34.3111	39.97	3.12	80.4	0.00	0.462	0.250	20.1
20	106	615.4	5.589	326.4757	1	33.7019	34.3578	41.49	3.22	89.6	0.00	0.226	0.165	9.8
20	105	717.6	5.093	326.4723	1	33.3441	34.4053	42.75	3.26	98.4	0.00	0.391	0.175	17.0
20	104	871.2	4.559	326.4679	1	32.9702	34.4456	43.60	3.27	109.2	0.00	0.340	0.269	14.8
20	103	1024.3	4.024	326.4629	1	32.5952	34.4855	43.91	3.25	120.8	0.00	0.507	0.432	22.0
20	102	1228.5	3.422	326.4570	1	32.1886	34.5298	43.54	3.20	134.6	0.00	0.778	0.695	33.8
20	101	1403.9	2.993	326.4519	1	31.8627	34.5031	42.61	3.41	146.7	0.10	1.481	0.942	64.4

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